Music in Cilappatikaaram

Dr. S. RAMANATHAN

MADURAI - KAMARAJ UNIVERSITY
Palkalainagar, Madurai - 625 021
Tamilnadu, S. India

MUSIC IN CILAPPATIKAARAM

by

Dr. S. RAMANATHAN
Retd. Principal
Sri Satguru Sangeetha Vidyalayam
College of Music, Madurai.

Publication brought out

by

SRI SATHGURU SANGEETHA VIDYALAYAM

(College of Music)

MADURAI

With the assistance of

THE UNIVERSITY GRANTS COMMISSION

NEW DELHI

Under the auspicious of

MADURAI KAMARAJ UNIVERSITY

MADURAI

FOREWARD

Cilappatikkaaram is a source book for early Tamil music. The commentators added additional information while commenting on the lines referring to music, dance and musical instruments in this text. Tamil scholars have been just omitting these portions from serious studies because they are not trained in music to understand them. Performing artists in music have mostly been indifferent to it, becasue of their disinterest in the theoretical aspects of music and the need for deep scholarship and specialised studies in Tamil literature. Prof. S. Ramanathan has in him a rare combination of all these and hence was able to unearth the truths hidden behind the crisp statements about musicology in ancient Tamil. His intensive study of the text Cilappatikaaram as a classic under eminent Tamil scholar, his experience as a practising musician, and his knowledge of the theory of music have enabled him to work on Music in Cilappatikaaram and produce an original work which has been accepted for the Ph. D. Degree in an American University.

The study for the first time attempts to interpret scientifically ancient Tamil music. The text in Cilappatikaaram and the commentaries on which he based his interpretation are given at the end of the book with their translations and cross references are given throughout the study.

Chapter I deals with VaTTappaalai and demonstrates how the four major PaN-s were derived from it. Chapter II dealing with Vampuri Marapu concludes with a discussion of the fusion of Tamil and Sanskrit systems of music, and states that this fusion should have started atleast as early as 7th century A.D. His statement on the religious affiliation of Kovalan and Kannaki may raise controversles : but that does not have any relevance to the main theme of the thesis.

Chapter III dealing with PaN-s in Cilappatikaaram starts with a discussion that PaN and Paalai are different. He explains the difference between the two. This chapter concludes with a discussion and listing of the 103 PaN-s referred to by the commentators. They are identified with those occurring in Teevaaram and with modern ragas.

Chapter IV is a discussion of the musical instruments in Cilappatikaaram and those mentioned by the commentators. Yaazh and ViiNai, referred to in Cilappatikaaram are discussed in great detail. Chapter V deals with the musical forms-uru in Cilappatikaaram.

There are twenty diagrams illustrating the dance movements and the PaN-s.

Prof. S. Ramanathan has made a great and original contribution to unravel the music of the ancient Tamils. It is an extremely commendable effort and breaks new ground in research in Tamil. The pioneering nature of the endeavour is as important as the contribution.

We see evidences of works of art, science and engineering in our land and literature. But we have not been able to get at the source of this knowledge in Tamil works. The study of Tamil literature with a view to understanding the attainments of the ancient Tamils in various fields of knowledge, is a highly desirable and welcome effort. Viewed from this angle, Prof. Ramanathan's contribution deserves the highest commendation.

V. C. KULANDAISWAMY
Vice-Chancellor
Madurai Kamaraj University.

Dr. S. RAMANATHAN Ph. D. (Wesleyan)
(Retd. Principal, Sri Satguru Sangeetha Vidyalayam
College of Music, Madurai)
Ex-Dean, Faculty of Fine Arts
University of Kerala
Hony. Director of Research,
Tamil Isai Kalloori,
Madras.

66, T. P. Koil St.,
Triplicane, Madras-5

Date : 22-2-1979

Author's Preface

I feel immensely happy that my thesis on "Music in Cilappatikaaram" for which I was awarded the Degree of Doctor of Philosophy in Ethnomisicology by the Wesleyan University, Middle town, Conn. U. S. A., is now being published in book form by the Madurai Kamaraj University. In this connection, I wish to record my deep sense of gratitude to the Vice-Chancellor, Madurai Kamaraj University, for undertaking to publish the work.

I am also deeply indebted to the Chairman, University Grants Commission, New Delhi, for the financial assistance which made the publication of my thesis in book form possible.

My thanks are due to Sri V. V. Varadarajon, Correspondent, Sri Sathguru Sangeetha Vidyalayam, Madurai, for his cooperation in fixing up the Press for the printing of the book and for getting the work expedited.

Dr. V. Premalatha, Principal, Sri Sathguru Sangeetha Vidyalayam, Madurai, has placed me in her debt supervising the printing work.

Messrs Graphico, Madurai, have done a fine job by printing the book in an exquisite manner. My thanks are due to them.

(Sd) S. RAMANATHAN

Abstract of Thesis

Music in Cilappatikaaram

Cilappatikaaram is a well-known classic in Tamil written in the second century A.D. It contains a mine of information about music and dance in ancient Tamil land. Several musical scales, musical instruments and musical forms are described in this work. It has two commentarie, which, though written several centuries after the original, are invaluable for not only do they explain the difficult passages but also augment their comments with copious quotations from ancient Tamil treatises on music and dance.

Because of the lapse of about 1800 years since it was written, the language, though Tamil, poses a problem for most of the terms pertaining to music and dance used in the classic are no longer in currency.

The aim of this thesis is to unravel, as far as it is possible, the meanings of these terms and find the identity of the ancient paN-s (musical modes), musical instruments like the yaazh, kuzhal and taNNumai and musical forms.

The ancient Tamil musical scale is ingeniously introduced by the author of Cilappatikaaram when describing a dance performed by seven girls standing in a circle. The girls are given the Tamil names of the seven musical notess kural, tuttam, kaikkiLai, uzhai, iLi, viLari and taaram. The girls are made to take their positions in the circle equidistantly as the musical notes were located in the various signs of the zodiac according to the old tradition. The commentators cite passages from old treatises which describe the scale in terms of the positions of the seven notes in the zodiac, the relationship of the notes, the intervals etc.

The octave is divided into 22maattirai-s. The basic scale is paalaiyaazh and other scales (paalai-s) are derived from it by kural tiripu (shifting of kural), kural tiripu is done in clock-wise and anticlock-wise methods. All this has been explained with the aid of a number of diagrmas and tables.

In chapter 3 of Cilappatikaaram, the new tradition is described in which Bharata's shaḍja graama (arumpaalai) becomes the basis for deriving new scales. Bharata's exposition of the 22 s'ruti-s with two viiNaa-s has been explained.

Due to the fusion of the cultures of the South and the North of the Indian sub-continent, the solfa syllables, sa ri ga ma pa dha ni were accepted in the South and also the Sanskrit word, raaga, which was incorporated in the names of the paN-s.

Several paN-s have been identified the most important of which is mullaippaN. Data about the instruments yaazh kuzhal and taNNumai found in Cilappatikaaram have been collected and an attempt has been made to rediscover their identity. The measurements regarding the kuzhal have been worked out and shown in diagrams.

The thesis is supported by translation of as many as 153 passages from Cilappatikaaram and its commentaries and also transliteration of the quoted passages with word meanings.

PREFACE

In the nineteen forties, the Tamil Isai Sangam was established at Madras for fostering Tamil music and many musicans and Tamil scholars were invited to attend an annual Conference at Madras during December. A number of *ootuvaa-s,* hereditary musicans attached to temples for singing the Tamil *teevaaram* hymns of the 7th and 9th century A D., participated in the Conferences. From the very beginning. I used to attend these meetings regularly. We could listen to the hymns set in various paN-s (musical modes) as handed down by oral tradition. There is inscriptional evidence which shows that the institution of ootuvaar-s started as early as the 9th century A.D.

I got interested in the study of the paN system of the ancient Tamils. I collected references about paN-s in the Tamil classics of the Cankam age (4th cent. B.C. to 2nd cent. A.D.). I found Cilappatikaaram and its two commenteries a veritable treasure of information about music in general and paN-s in particular.

The Tamil world is indebted to the great savant, the late Maha Mahopadhyaya Dr. U. V. Swaminatha Aiyar who collected, along with several other Tamil classics, the palm leaf manuscript of Cilappatikaaram with its two commentaries and published it in print for the first time in 1892.

The publication of the above classics opened up new vistas of learning and historians and Tamil scholars began to study deeply about the life and culture in the ancient Tamil country. In 1916, Abraham Pandithar of Tanjore published his 'KaruNaamiruta Caakaram' which deals with ancient Tamil music. In this work, his main concern was whether there were 22 s'ruti-s or 24 s'ruti-s in an octave. In his view, the octave was divided into 24 s'ruti-s of equal interval.

In 1941, Vipulananda Adigal produced a valuable research work, 'yaazh nuul', in which he has devoted a chapter to the musical scales mentioned in Cilappatikaaram.

Aided by Prof. P. Sambamoorthy, V. R. Ramachandra Dikshitar has added a note on 'Music in Cilappatikaaram' in the Appendix of his translation of Cilappatikaaram published in 1947. To these pioneers, I wish to express my deep sense of thankfulness.

I began the study of Cilappatikaaram with the help of Prof. C. Jagannathachariar. After years of study in 1956, my book, 'Cilappatikaarattu icai nuNukka viLakkam' was published in Tamil. Sangita kalanidhi Mudicondan C. Venkatarama Aiyar, Principal, Teachers' College of Music, Music Academy, Madras wrote the foreword to my book and I dedicated it to Raja Sir Annamalai Chettiar, Founder and Pro-Chancellor of the Annamalai University. My book was reviewed in the journal of the Music Academy, Madras, the Hindu and other important Tamil papers. It drew appreaiation from musicans and Tamil scholars.

On the basis of my thesis, I have given talks and practical demonstrations on the "Music in Cilappatikaaram" before audiences at the Central College of Music at Madras, Music Academy at Madras, Sangeet NataK Akademi at New Delhi and Tamil Isai Sangam at Madras. My thesis on MullaippaN was accepted by the paN Research Conference of the Tamil Isai Sangam on December 31, 1958.

Last year when I spoke to Mr. Theodore Grame, Mr. Jon Barlow and Mr. David Mc Allester, about my work, they showed great interest in it. When I proposed to present a thesis on the same subject, I was advised to give the transliteration and translation of the original matter which is in Tamil. To my knowledge, there are now two English translations of Cilappatikaaram, one by V. R. Ramachandra Dikshitar, and the other by Alain Danielou. But I had to translate the relevant passages myself, for both the above mentioned translations are inadequate for my purpose and

much of the material I have used is from the two commentaries which have not so far been translated.

In giving word for word translations, the Dravidian Etymological Dictionary by Burrow and Emaneau has been of great help. N. M. Venkatasami Nattar's edition of Cilappatikaaram has been of immense help as he gives word for word Tamil meaning of the text with explanatory notes.

My thanks are due to Prof. C. Jagannathachariar and Prof. A. S. Gnanasambandam for having gone through my translations and for their valuable suggestions.

I am indebted to Mr. Jon Barlow and Mr. Theodore Grame for all the help they gave me in preparing my thesis.

I wish to record my sense of gratitude to Dr. M. Varadarajan, Vice-Chancellor, Madurai University, not only for his interest in my work but also for his valuable advice regarding the scheme of translation.

I thank Mr. Geoffrey Fuller for having helped me with the diagrams.

Wesleyan University
Middletown, Conn.

S. Ramanathan

Note on Transliteration

The scheme of transliteration from Tamil to Roman script used here follows the one adopted by the Annamalai University, South India. For the sake of exactness, capital 'R' has been used for the letter ற. Both ந and ண are represented by 'n'; it is the former when it is at the beginning of a word and the latter when it is not so. 'n' can only be ங் when it occurs before k (க) and (ஞ்) when it occurs before c (ச).

In the case of Sanskrit words, the usual scheme is followed except in the case of the long vowels, T for ट (ṭ), N for ण (ṇ) and sh for ष (ṣ).

Scheme of Transliteration from Tamil to Roman script

Vowels

a	like	u	in	'but
aa	like	a	in	'father'
i	like	i	in	'pin'
ii	like	ee	in	'seen'
u	like	u	in	'put'
uu	like	oo	in	'noon'
e	like	e	in	'hen'
ee	like	e	in	'same'
ai	like	i	in	'fine'
o	like	o	in	'obey'
oo	like	o	in	'note'
au	like	ow	in	'now'
x	like	h	in	'has'

Scheme of Transliteration from Tamil to Roman Script

Consonants

k	like	l	in	'king'
n before k	like	n	in	'sink'
c	like	ch	in	'chair'
ñ or n before c	like	n	in	'inch'
T	like	t	in	'top'
N	like	n	in	'learn'
t	like	th	in	'breath'
n	like	n	in	'net' only as a first letter of a word.
p	like	p	in	'past'
m	like	m	in	'jump'
y	like	y	in	'yard'
r	like	r	in	'rat'
l	like	l	in	'log'
v	like	v	in	'very'
zh	like	peculiar to Tamil; a slurred sound between r and l.		
L	like	l	in	'pearl'
R	like	lightly rolled r.		
n	like	n	in	'fine' when not the first letter of a word.

Tamil names of musical notes.

Tamil	Sanskrit	Symbol	Western	Solfa
kural	shaḍja	sa	C	do
tuttam	rishabha	ri	D	re
kaikkiLai	gaandhaara	ga	E	mi
uzhai	madhyama	ma	F	fa
iLi	pancama	pa	G	sol
viLari	dhaivata	dha	A	la
taaram	nishaada	ni	B flat	si flat

The current nomenclature of the twelve semitones in South Indian Music.

	Tamil	Sanskrit	Symbol	Western
1.	kural	shaḍja	sa	C
2.		suddha rishabha	ri-1	D flat
3.	tuttam	catus' ruti rishabha	ri-2	D
4.		saadharaNa gaandhaara	ga-1	E flat
5.	kaikkiLai	antara gaandhaara	ga-2	E
6.	uzhai	suddha madhyama	ma-1	F
7.		prati madhyama	ma-2	F sharp
8.	iLi	pancama	pa	G
9.		suddha dhaivata	dha-1	A flat
10.	viLari	catus' ruti dhaivata	dha-2	A
11.	taaram	kais'iki nishaada	ni-1	B flat
12.		kaakali nishaada	ni-2	B

Zodiacal Signs

	Tamil	Latin	English meaning
1.	meeTam	Aries	Ram
2.	iTapam	Taurus	Bull
3.	mitunam[1]	Gemini	Twins
4.	kaTakam	Cancer	Crab
5.	cimmam	Leo	Lion
6.	kanni	Virgo	Virgin
7.	tulaam	Libra	Balance
8.	viruccikam	Scorpius	Scorpion
9.	tanu[2]	Sagittarius	Archer; of the arrow
10.	makaram[3]	Capricornus	Sea-goat; lit. horned goat
11.	kumpam[4]	Aquarius	Water-pot
12.	miinam	Pisces	Fish

1. mitunam - a pair (male or female), also twins.
2. tanu - bow
3. makaram - a sea monster.
4. kumpam - pot, jar.

Abbreviations

aru - arumpata urai
ATi - ATiyaarkkunallaar
C. - Cilappatikaaram
Enc. Br. - Encyclopedia Britannica
F.R. - Frequency Ratio
kai - kaikkiLai
kur. - kural
lit. - literally
S. - Sanskrit
T. – Text
taa - taaram
TR. - translation
tut - tuttam
uzh - uzhai
viL - viLari

Index to Diagrams

Diagram 1. Zodiac; with the seven notes.
2. ,, paalaiyaazh (cempaalai).
3. ,, kuRinciyazzh.
4. ,, marutayaazh.
5. ,, neytaliyaazh.
6. ,, cevvazhi
7. ,, paTumalaippaalai
8. ,, cevvazhippaalai
9. ,, arumpaalai
10. ,, kooTippaalai
11. ,, viLarippazlai
12. ,, meeRcempaalai
13. ,, mullaippaN
14. ,, paN centurutti
15. ,, hindolam
16. ,, paN pazhantakka raakam
17. ,, s'uddha dhanyasi
18. kuzhal; measurements
19. ,, the seven notes
20. ,, fingering

Index to Tables

Table 1. The maattirai-s of the seven paalai-s.
2. The maattirai-s in relation to their kural.
3. The relative positions of the notes of the seven paalai-s.
4. The seven paalai-s and the equivalent raaga-s and western modes.
5. kural tiripu from paalaiyaazh (valamuRai)
6. kural tiripu from paalaiyaazh (iTamuRai)
7. kural tiripu from arumpaalai; (iTamuRai)
8. The s'ruti-s of the seven notes in the two viinaa-s of Bharata.

CONTENTS

Author's Preface	...	v
Abstract of Thesis	...	vi
Preface	...	viii
Note on Transliteration	...	xi
Scheme of Transliteration from Tamil to Roman script (Vowels)	...	xii
Scheme of Transliteration from Tamil to Roman script (Consonants)	...	xiii
Tamil names of musical notes	...	xiv
The current nomenclature of the twelve semitones in South Indian Music	...	xv
Zodiacal signs	...	xvi
Abbreviations	...	xvii
Index to Diagrams	...	xviii
Index to Tables	...	xix
Introduction	...	1
Chapter I. Vattappaalai the old tradition	...	7
Chapter II. VampuRu marapu, the new tradition	...	26
Chapter III. paN-s in Cilappatikaaram	...	36
Chapter IV. Instruments mentioned in Cilappatikaaram and its Commentaries	...	47
Chapter V. URU or Musical forms in Cilappatikaaram	...	56
Diagrams	...	61
Translation of passages of Quoted	...	105
Translation of passages quoted from Cilappatikaaram and the two commentaries Arumpata urai and Atiyaarkkunallar's with word meanings	...	129
References	...	178
Glossary	...	178
Bibliography	...	192
Pesonal Resume S. Ramanathan	...	196

INTRODUCTION

i. Cilappatikaaram is a well-known literary classic in Tamil, one of the principal Dravidian languages spoken in South India. The term 'Cilappatikaaram' is made up of two words, "cilampu" which means "anklet" and "atikaaram" which means "chapter" or "head." The Epic of the Anklet owes its name to the fact that the principal happenings in the story revolve round an anklet.

Cilappatikaaram is hailed as a classic incorporating the triple aspects of the Tamil language: *iyal* (poetry), *icai* (music), and *naaTakam* (drama). It is a literary masterpiece; it contains several musical compositions; and some of the scenes in the story are dramatized.

Cilappatikaaram is an important source of information on the arts of music and dance in the Tamil country. A number of musical scales and several kinds of dance are mentioned. To the student of musicology, it is a veritable treasure of source-material for the understanding of the history of Indian music in ancient times.

The author of Cilappatikaaram was ILankoovaTikal. He was the younger son of Ceeralaatan, a Ceera king. His elder brother was CenkuTTuvan who later ascended the throne after his father.

ILankoo became an ascetic when quite young and the story of his renunciation is briefly related in the last chapter of the epic. One day while the young prince was seated with his father, there came to the court a fortune-teller who prophesied that the younger prince was going to become the king and not the elder one. Immediately, ILankoo announced his renunciation thus falsifying the prophesy of the fortuneteller.

Opinion is divided among scholars regarding the date of Cilappatikaaram. K. A. Nilakanta sastri gives the date of Cilappatikaaram as c. 600 A.D.[1] John Marr feels that it "may probably be assigned to the 6th or 7th century."[2] S. Vaiyapuri Pillai pushes it still later. U. V. Swaminatha Aiyar in his introduction to his edition of Cilappatikaaram writes, "It is known from Mahaavams'a, a history of Ceylon, that there was a king named Kayavaaku about 1800 years ago. It is also learnt from that history that there was another king by name Kayavaaku about 800 years ago. But considering the period of some other kings mentioned in this work, the period of the author of Cilappatikaaram can be concluded to be the same as that of the first Kayavaaku."[3]

Alain Danielou, in his introduction to his translation of Cilappatikaaram writes, "Already, however, certain internal and external evidence permits a reasonable estimate of its date of composition. The absence of any mention of the Pallavas in the south or of any paramount power in the north would indicate a date anterior to the Gupta-Pallava period. We know, furthermore, that Gajabahu of Ceylon, who is mentioned in Shilappadikaram, began his reign in 171 A. D. This would set the story near the end of the second century and its composition at the end of the second or the beginning of the third century. The date of 171 A. D. suggested by Ramachandra Dikshitar for the composition of The Ankle Bracelet cannot be very far from reality."[4]

ii. There are two commentaries on Cilappatikaaram: 1. *arumpata urai* and 2. ATiyaarkkunalaar's. No biographical data of the two commentators are available, excepting for the name of the patron of the latter. Not even the name of the former is known; he is just referred to as the author of arumpata urai.

In the article on Tamil Literature in the Encyclopedia Britannica, the probable date of ATiyaarkkunallaar is given as the period between the 9th and 12th centuries.

Alain Danielou, writes, "the Arumpadavurai, by an unknown author, is ancient and incomplete; the other by Adiyārkkunallār, was written in the fifteenth century."

The arumpata urai, as its name, "meaning of rare words," suggests, is very brief. ATiyaarkkunallaar, while following it closely, adds detailed explanations. The value of the two commentaries cannot be exaggerated. They are indispensable for the understanding of the meaning of several passages in the original, especially those relating to music and dance. Their worth is further enhanced by the plethora of quotations from ancient Tamil treatises on music and dance. Most of these treatises are now irretrievably lost and exist only in the two commentaries as quotes. But for their explanations and the quoted passages from old texts, the present thesis would not have been possible.

iii. Synopsis of the Story: In pukaar, the capital of the Coozha kingdom, Koovalan was born as the son of a rich merchant. He was handsome and a lover of fine arts. He married KaNNaki and their wedded life went on happily for some years until Koovalan became fascinated by the beauty and the artistic skill of Maatavi, a courtesan. Koovalan neglected his wedded wife and began to live with the courtesan. He spent lavishly on her and was becoming gradually impoverished.

During a festival, Koovalan and Maatavi went to the sea-shore where they diverted themselves singing and playing on the yaazh. Due to a misunderstanding, Koovalan left her abruptly and went back to his home to rejoin his wife.

The re-united but impoverished couple decided to go to Maturai in the PaaNTiyan kingdom and start a new life. They journeyed on foot to Maturai where they were received as guests by a cowherdess.

Leaving KaNNaki with the cowherdess, Koovalan went out with one of KaNNagi's golden anklets selling which he wanted to raise capital in order to start a business in

Maturai. Fatefully, he met a goldsmith and showed the anklet to him for evaluation. The goldsmith, who had stolen the queen's anklet, saw in Koovalan a perfect scapegoat for foisting the theft of the queen's anklet. Asking Koovalan to wait a little while, he hurried to the king and informed him that he had seen the anklet of the queen in the hands of a thief whom he had left waiting near his house. The king, who was in a confused condition on account of a recent quarrel with his queen, ordered his servants to kill the thief and to bring the anklet. The goldsmith took the king's officers to the place where Koovalan was waiting. One of the executioners on seeing him with an anklet killed him instantly.

The news of Koovalan's death was conveyed to KaNNaki who was watching a *Kuravai* dance performed by seven girls forming a circle. Sorrow-stricken, she ran to the king's court for an audience with him. She demanded why her husband had been executed. The king replied that he had stolen the queen's anklet and as such deserved execution. She denied the charge and asked what the queen's was inlaid with. The king replied, "Pearls." She cried, Mine is inlaid with rubies!" So saying, she dashed to the ground the anklet "retrieved" from Koovalan. It was broken to pieces revealing the inlaid rubies. The king immediately saw the grave injustice he had committed. Crying "Am I a King? I am the thief!" he fainted and fell down dead, The wronged KaNNaki cursed the Maturai city which went into flames and was reduced to ashes.

Thereon she left Maturai and went westward to the Ceera country and on the 14th day Koovalan appeared before her as a god and the couple ascended to heaven. Some huntsmen and their womenfolk who witnessed their ascension to heaven proceeded to the Ceera king's court and informed him of what they had seen. The king learnt the whole story from a poet from Maturai. He wanted to build a temple for KaNNaki whom he considered to be a goddess.

The Ceera king sent an army to the North. Vanquishing many kings in North India, the army brought a stone (rock) from the Himalayas for making KaNNaki's idol, Expert architects built a temple and the idol was installed in it with due ceremony. At the consecration ceremony, some Aryan kings from North India and Kayavaaku of Ceylon were present.

Later ILankoo aTikaL, the author of Cilappatikaaram, also visited the KaNNaki temple, built by his brother, the Ceera king CenkuTTuvan.

iv. Bharata, in his naaTya s'aastra (2nd cent. B. C.), speaks very highly of the excellence of the people of the Deccan (South India) in the fields of music and dance. A reading of the Tamil classics written more than 1800 years ago will show that such a tribute was well justified. Some of the classics deal with the lives of *paaNar* or minstrels. Instruments like the yaazh are frequently mentioned. The melodic system had evolved to such an extent that there were several paN-s (musical modes) already in existence in those remote times.

The songs in *paripaaTal* (a Tamil classic, 2nd cent. A. D.) were set in paN-s. The teevaaram hymns composd by Appar, Campantar (7th cent.) and Cuntarar (9th cent.) were composed in paN-s. The original setting of most of the paN-s has fortunately been preserved in oral tradition by a class of musicians attached to Saivaite temples. The *tivviyapprapantam* hymns which were also composed in paN-s by the 12 *Aazhavaars* were contemporaneous with the teevaaram hymns but their original musical setting has been lost.

As the music has been handed down generation to generation through the centuries only in oral tradition, there is no way of knowing precisely about the musical scales used in ancient Tamil land except through treatises on music and the living tradition of the hymnal music.

The Sangiita Ratnaakara (13th cent.) mentions the names of a few of the paN-s but is not very helpful. All the Tamil treatises on music mentioned in or quoted from the commentaries of Cilappatikaaram are no longer available. The most important Tamil sources besides the living hymnal music which throw light on ancient music are the lexicons (c. 11th cent.) and the classics written about the 2nd century A. D.

Among the classics, Cilappatikaaram is unique. While in the earlier works only the names of the paN-s are mentioned, Cilapatikaaram contains descriptions of some of the paN-s. Its two commentaries not only explain many of the obscure passages in the text but also quote from a number of Tamil treatises on music extant at their time.

It is well to bear in mind that Cilappatikaaram is not a treatise on music. Music is introduced only when there is relevance to the story. Most of the references to music are found in chapter 3 dealing with the debut of the danseuse, chapter 7 containing a number of the songs and chapter 17 in which the kuravai dance is described. In chapter 3, the qualifications of the vocal musician, yaazh player, flutist, drummer and the dance teacher are narrated. The instruments that were used at the debut are mentioned. It also speaks of a new tradition. The older tradition is referred to in the chapter on the kuravai dance. The technique of yaazh playing is described in chapter 7. In the other chapters, musical references are sporadic.

It must also be remembered that there is gap of several centuries between the date of Cilappatikaaram and that of the commentaries. There is no way of dating the treatises mentioned in them. Some of them could well have been earlier than Cilappatikaaram itself.

It is not possible also to know whether the quotations are from the same work, or if it were so, from the same place in that work. Despite all these limitations, the commentaries still throw a beam of light which brightens up the dim past.

CHAPTER I

VATTAPPAALAI, the old tradition

The author of Cilappatikaaram ingeniously introduces the *vaTTappaalai,* the circular representation of musical notes, when describing the kuravai dance. It is a dance performed by seven girls standing in a circle. He makes the girls take the positions of the seven notes of the ancient musical scale. They are given the names of musical notes and made to take their places in the circle according to the old tradition of assigning positions to the musical notes in the various signs of the zodiac.

i. The seven girls performing the kuravai are given the names of the seven musical notes: *kural, tuttam, kaikkiLai, uzhai, iLi, viLari* and *taaram.* (T. 1) Kural stands in the west.

ii. In his commentary on the above lines, ATiyaarkku-nallaar begins with the statement that *paalai* is of four kinds: linear, square, triangular and circular. Of these, he proceeds to describe the vaTTappaalai. *vaTTam* means a circle and paalai is a musical scale of seven notes.* As the ancient method of representing musical notes was mentioned in the original, the commentators seek to describe the vaTTappaalai in which the musical notes were allocated positions in the zodiac. The other three kinds are only mentioned but not explained.

Both the commentaries quote verses as to how to draw the zodiac. (T. 7, 13) A circle is to be described with two diameters showing the four cardinal points, East, West and North. At each of the four angles, two

---

* It is interesting to note that paalai denotes also the seven-leaved milk-plant, Alstonia scholaris.

more lines are to be drawn, thus making the twelve signs of the zodiac; Taurus is fixed in the East.

Then there are two verses in arumpata urai and one in ATiyaarkku nallaar's commentary which tell us where the seven notes* are located in the zodiac: T.8, 9, 18. Vide Diagram 1.

Sign		Note	Symbol
1.	Libra	Kural	sa
2.	Scorpius	—	—
3.	Sagittarious	tuttam	ri-2
4.	Capricornus	—	—
5.	Aquarius	KaikkiLai	ga-2
6.	Pisces	uzhai	ma-1
7.	Aries	—	—
8.	Taurus	iLi	pa
9.	Gemini	—	—
10.	Cancer	viLari	dha-2
11.	Leo	taaram	ni-1
12.	Virgo	—	—

The fact that the seven notes are shown in a zodiac with twelve signs stands testimony to the ancient Tamils' awareness of the twelve semitones in the octave.

The kural. in Libra, is in the west and this accords with its position indicated in T. 1

iii. Of the seven notes, taaram is the first to appear.

in taaram	uzhai is born
in uzhai	kural is born;
in kural	iLi is born;
in iLi	tuttam is born;
in tutaam	viLari is born;
in viLari	kaikkiLai is born. T. 20.

---

*The word *narampu* (gut-string) is used to denote the musical notes. The yaazh, a harp-like instrument, had gut-strings. It had seven strings in an octave tuned to the seven notes. In a course of time, 'narampu' came to denote the musical notes.

It may be noted that uzhai is the fifth note at the eighth sign from taaram in which it is born. Similarly, kural, iLi, tuttam, viLari and kaikkiLai are each the fifth note and at the eighth sign from the note in which they are born. Such a progression is called *iLikkiramam.*

iLi is the fifth note and 'kiramam' means "order, regular progress or succession." So "iLikkiramam" means progressing by fifths.

iv. In vaTTappaalai, the four major paN-s are born (T. 21). They are *paalaiyaazh, kuRinciyaazh, marutayaazh* and *cevvazhi.*

paalaiyaazh :

The notes of the paN-s are to be tuned in the yaazh by iLikkiramam. (T. 79) The note on which to start for each of the four paN-s is indicated in a verse quoted by ATiyaarkkunallaar :

"when uzhai appears in taaram, it is paalaiyaazh." T. 21.

Starting from taaram in Leo and proceeding by iLikkiramam, the seven notes of paalaiyaazh will be located in the zodiac as shown in Diagram 2.

In terms of current nomenclature, the notes of the paN paalaiyaazh are shadja, catus'ruti rishabha, antara gaandhaara, suddha madhyama, pancama, castus'ruti dhaivata and kais'iki nishaada.

The notes of paalai yaazh are the same as those of the raaga harikaambhooji.

"kural being born in uzhai, it is kuRinciyaazh." T. 21.

Starting with uzhai in pisces and proceeding in iLikkiramam, the position of the seven notes in the zodiac will be as shown in Diagram 3.

The taaram is now located in Virgo.

Sign	Note	Symbol
1. Libra	kural	sa
2. Scorpius	—	—
3. Sagittarius	tuttam	ri-2
4. Capricornus	—	—
5. Aquarius	kaikkiLai	ga-2
6. Pisces	uzhai	ma-1
7. Aries	—	—
8. Taurus	iLi	pa
9. Gemini	—	—
10. Cancer	viLari	dha-2
11. Leo	—	—
12. Virgo	taaram	ni-2

According to current nomenclature, the notes of the paN kuRinciyaazh are : shaḍja, catus'ruti rishabha, antara gaandhaara, suddha madhyama, pancama, catus'ruti dhaivata and kaakali nishaada.

The raaga *kurinji* which is current in Soutn Indian Music has just the same notes as above. It is a derivative of s'ankaraabharaNa.

marutayaazh :

" iLi being born in kural, it is marutayaazh. " T.21, Starting with kural in Libra and proceeding in iLikkiramam, the notes of the paN marutayaazh wiil be located in the zodiac as shown in Diagram 4.

Sign	Notes	Symbol
1. Libra	kural	sa
2. Scorpius	—	—
3. Sagittarious	tuttam	ri-2
4. Capricornus	—	—
5. Aquarius	kaikkiLai	ga-2
6. Pisces	—	—
7. Aries	uzhai	ma-2

8.	Taurus	iLi	pa
9.	Gemini	—	—
10.	Cancer	viLari	dha-2
11.	Leo	—	—
12.	Virgo	taaram	ni-2

taaram is in Virgo and uzhai in Aries.

According to current nomenclature, the notes of marutayaazh are : shadja, catus'ruti rishabha, antara gaandhaara, prati madhyama, pancama, catus'ruti dhaivata and kaakali nishaada.

The paN marutayaazh has the same notes as those of the raaga KalyaaNi.

neytaliyaazh :

" tuttam being born in iLi, it is neytaliyaazh. " T. 21 Starting with iLi in Taurus and proceeding in ILikkiramam, the notes of the paN neytaliyaazh will be located as shown in Diagram 5.

Sign		Notes	Symbol
1.	Libra	—	—
2.	Scorpius	tuttam	ri-1
3.	Sagittarius	tuttam	ri-2
4.	Capricornus	—	—
5.	Aquarius	kaikkiLai	ga-2
6.	Pisces	—	—
7.	Aries	uzhai	ma-2
8.	Taurus	iLi	pa
9.	Gemini	—	—
10.	Cancer	viLari	dha-2
11.	Leo	—	—
12.	Virgo	taaram	ni-2

Uzhai is in Aries and at the eighth sign from Aries is Scorpius and thus the kural in Libra is skipped. So neytaliyaazh is called 'tiRanilyaazh' meaning a paN that is not practicable.

cevvazhi :

But starting with the last note i. e. tuttam in Scorpius and proceeding in iLikkiramam, the seven notes will be located as shown in Diagram 6.

	Sign	Note	Symbol
1.	Libra	kural	sa
2.	Scorpius	tuttam	ri-1
3.	Sagittarius	—	—
4.	Capricornus	kaikkiLai	ga-1
5.	Aquarius	—	—
6.	Pisces	uzhai	ma-1
7.	Aries	—	—
8.	Taurus	iLi	pa
9.	Gemini	viLari	dha-1
10.	Cancer	—	—
11.	Leo	taaram	ni-1
12.	Virgo	—	—

It may be noted that kural again falls in Libra. That these are the notes of paNcevvazhi will be evident when the seven paalai-s are described. ATiyaarkkunallaar giving the names of the four paN-s substitutes paN cevvazhi in the place of neytaliyaazh, T. 67.

According to current nomenclature, the notes of paN cevvazhi are: shadja, suddha rishabha, saadhaaraNa gaandhaara, s'uddha madhyama, pancama, s'uddha dhaivata and kais'iki nishaada. The corresponding raaga is toodi.

v. There is one verse in arumpata urai (T. 98) and one in ATiyaarkku nallaar's commentary (T. 19) giving the intervals between consecutive notes of the paalaiyaazh in vaTTappaalai in terms of *maattirai-s*

kur	tut	kai	uzh	iLi	viL	taa
4	4	3	2	4	3	2

'maattirai' means measurement of any kind; length, number quantity, duration etc.

The interval between	taaram and kural is 4	maattirai-s.
,,	kural and tuttam is 4	maattirai-s.
,,	tuttam and kaikkiLai is 3	maattirai-s.
,,	kaikkiLai and uzhai is 2	,,
,,	uzhai and iLi is 4	,,
,,	iLi and viLari is 3	,,
,,	viLari and taaram is 2	,,

In vaTTappaalai, if one starts at kural and proceeds around the circle, the octave is reached at the end of one cycle. Between kural and its octave, there are 22 maattirai-s made up of three 4-maattirai-s, two 3-maattirai-s and two 2-maattirai-s.

The position of each of the seven notes of paalaiyaazh among the 22 maattirai-s in relation to kural is as follows:

Note	mattirai
kural	0
tuttam	(0+4) = 4
kaikkiLai	(4+3) = 7
uzhai	(7+2) = 9
iLi	(9+4) = 13
viLari	(13+3) = 16
taaram	(16+2) = 18
kural (octave)	(18+4) = 22 or 0

In the Tamil treatises on music, the relationship between notes is expressed as *iNai* (octave or unison), *kiLai* (fifth), *naTpu* (fourth) and *pakai* (dissonance). T. 39, 40, 41, 42. The relationship of the fifth is considered very important. The musician is required to be able to tune two notes as kural and iLi in perfect agreement. (T. 37) The conception of iLikkiramam also points to the importance of the fifth.

The use of the word, 'narampu' meaning the string of the yaazh to denote the musical notes is significant.

The relationship between notes was evidently arrived at by sounding the strings of the yaazh in which it was possible to sound two notes simultaneously for the purpose of tuning.

Now, iLi is at an interval of 13 maattirai-s from kural. Expressed as frequency ratios:

kural	1 (0-maattirai)
kural (octave)	2 (22-maattirai)
iLi	3/2 (13 maattirai)

Interval between kural and uzhai = 9 mattirai-s
= 22—13 maattirai-s
= 2 divided by 3/2
= $2 \times 2/3$
= 4/3

9 maattirai interval = 4/3

Interval between uzhai and iLi = 4 maattirai-s
= 13—9 maattirai-s
= 3/2 divided by 4/3
= $3/2 \times 3/4$
= 9/8

4 maattirai interval = 9/8

Interval between kural and tuttam = 4 maattirai-s
= 9/8

Interval between kural and taaram = 9 + 9 maattirai-s
= $4/3 \times 4/3$
= 16/9

It was shown that starting from taaram, the notes of paalaiyaazh were arrived at by iLikkiramam, i. e., as fifths. We shall now proceed from taaram by fifths, i. e. by an interval of 13 maattirai-s which is the interval between kural and iLi.

taaram is at the **18th maattirai**
uzhai is at 18 + 13 = **31st mattirai**
Brought down an octave lower, 31 - 22 = 9
kural is at 9 + 13 = 22 or 0

iLi is at $0+13=13$
tuttam is at $13+13=26$
Brought down an octave lower, $26-22=4$
viLari is at $4+13=17$
kaikkiLai is at $17+13=30$
Brought down an octave lower, $30-22=8$
If viLari were tuned as perfect fifth of tuttam, its frequency ratio would be $9/8 \times 3/2=27/16$
If kaikkiLai were tuned as a perfect fifth of the above viLari, its frequency ratio would be brought down an octave lower, $27/16 \times 3/2 \times 1/2=81/64$.
Proceeding from taaram in iLikkiramam, viLari at the 17th and kaikkiLai at the 8th maattirai would not sound with kural in agreement. So these two were called pakai or enemy notes in relation to kural. (T. 42) But when tuning the yaazh, the musician was required to know the expedient of removing the dissonance and tune these notes correctly (T. 97, 98)

kaikkiLai which was in the 8th maattirai when arrived at by iLikkiramam should be tuned and brought to the 7th maattirai. kural and kaikkiLai could be sounded together and the latter tuned as a perfect third : 5/4.

viLari could be tuned as a perfect third of uzhai ($9+7=16$th maatirai) : $4/3 \times 5/4=5/3$.

The maatrai-s and frequency ratios of the notes of paalaiyaazh in vaTTappaalai in relation to kural are as follows :

Note	maattirai	Frequency ratio
kural	0	1
tuttam	4	9/8
kaikkiLai	7	5/4
uzhai	9	4/3
iLi	13	3/2
viLari	16	5/3
taaram	18	16/9
kural (octave)	22	2

Each of the seven notes of paalaiyaazh could be tuned as a fifth (13 maattirai-s), fourth (9 maattirai-s), or third (7 maattirai-s) with reference to another note.

kaikkiLai, uzhai and iLi could be tuned as the third, fourth and fifth of kural, i. e, at the 7th, 9th and 13th maattirai-s respectively.

tuttam (4 mattirai) could be tuned as the fifth below iLi so that the latter is at the 9th maattirai from tuttam (13-9-4)

viLari could be tuned as the third from uzhai, (9+7=16) taaram could be tuned as fourth of uzhai (9+9=18).

Interval between uzhai and iLi = 4 maatirai-s

,, kural and tuttam = 4 maattirai-s

,, taaram and kural = 4 maattirai-s

F. R. = 9/8

,, tuttam and kaikkilai = 3 maattirai-s

F. R. = 5/4 divided by 9/8

= 5/4 × 8/9

= 10/9

,, kaikkiLai and uzhai = 2 maattirai-s

F. R. = 4/3 divided by 5/4

= 4/3 × 4/5

= 16/15

,, viLari and taaram = 2 maattirai-s

F. R. = 16/9 divided by 5/3

= 16/9 × 3/5

= 16/15

Summing up,

4 maattirai interval = 9/8

3 maattirai interval = 10/9

2 maattirai interval = 16/15

kaikkiLai in Aquarius and uzhai in Pisces have their positions in consecutive signs; the interval between them is 2 maattirai-s. Similarly, viLari in Cancer and taaram in Leo, having their positions in consecutive signs, have an interval of 2 maattirai-s.

Though the interval for 1 semitone = 2 maattirai-s, the total number of maattirai-s for the 12 semitones in the octave is only 22. For two of the wholetone intervals, tuttam to kaikkilai and iLI to viLari have only 3 mattirai-s each.

It may be noted that 2maattirai = 16/15; but 4 maattirai is not $16/15 \times 16/15 = 256/225$ but 9/8.
$4+4+3+2+4+3+2=22$

$$9/8 \times 9/8 \times 10/9 \times 16/15 \times 9/8 \times 10/9 \times 16/15 = 2$$

The 22 maattirai-s distributed among the seven notes in the circular scale cannot fail to suggest the relationship between the circumference of a circle and its diameter; Pi or 22/7, a traditional approximation.

vi. The paalai-s are musical scales and are derived from the major paN, paalaiyaazh. (T. 21)

The process by which they are derived is by making the kural of paalaiyaazh stand for the tuttam, kaikkiLai, uzhai, iLi, viLari, and taaram of the paalai-s. In other words, as the kural of paalaiyaazh is in Libra, the kural of the paalai-s is shifted so that their tuttam, kaikkiLai, etc. fall in Libra. In the process, the maattirai-s of the different paalai-s are re-distributed.

The process is called *'kural tiripu'*, which means shifting of kural.

ATiyaarkku nallaar quoted a verse (T. 23) and also explains how the shifting of kural is accomplished and the seven paalai-s derived. (T. 24, 25)

cempaalai:

"The kural of campaalai and that of paalaiyaazh coincide." (T. 24) In cempaalai, the kural is not shifted. Its kural is in Libra. So the notes of paalaiyaazh and cempaalai are identical.

paTumalaippaalai :

"Taking away half the maattirai-s of kural and half of iLi and giving one each to taaram, uzhai, viLari and kaikkiLai tuttam will be kural; tuttam becoming kural, it is paTumalaippaalai." (T. 24)

	kur	tut	kai	uzh	iLi	viL	taa
paalaiyaazh	4	4	3	2	4	3	2
	4/2	3	3+1	2+1	4/2	3+1	2+1
paTumalaippaalai	2	4	4	3	2	4	3

If we set up the maattirai-s of paTumalaippaalai so that its tuttam is in juxtaposition against the kural of paalaiyaazh, the mattirai-s of the two will be seen to coincide.

		kur	tut	kai	uzh	iLi	viL	taa
paalaiyaazh		4	4	3	2	4	3	2
	kur	tut	kai	uzh	iLi	viL	taa	kur
paTumalaippaalai	2	4	4	3	2	4	3	(2)

The tuttam of paTumalaippaalai coincides with the kural of paalaiyaazh in Libra; so its kural is shifted to Leo. Vide Diagram 7.

	Sign	Note	Symbol
1.	Leo	kural	sa
2.	Virgo	—	—
3.	Libra	tuttam	ri-2
4.	Scorpius	—	—
5.	Sagittarius	kaikkiLai	ga-2
6.	Capricornus	—	—
7.	Aquarius	uzhai	ma-2
8.	Pisces	iLi	pa
9.	Aries	—	—
10.	Taurus	viLari	dha-2
11.	Gemini	—	—
12.	Cancer	taaram	ni-2

In terms of current nomenclature, the notes figuring in paTumaippaalai are; shadja, catus'ruti rishabha, antara

gaandhaara, prati madhyama, pancama, catus'ruti dhaivata and kaakali nishaada.

The corresponding raaga is kalyaaNi.

The other paalai-s, *cevvazhippaalai* etc. are derived by shifting their kural in the same way.
Cevvazhippaalai :

"kaikkiLai becoming kural, it is cevvazhippaalai." (T. 25) Following the same pattern, the kaikkiLai of cevvazhippaalai coincides with the kural of paalaiyaazh in Libra. So its kural is in Cancer. Vide Diagram 8.

	Sign	Note	Symbol
1.	Cancer	kural	sa
2.	Leo	tuttam	ri-1
3.	Virgo	—	—
4.	Libra	kaikkiLai	ga-1
5.	Scorpius	—	—
6.	Sagittarius	uzhai	ma-1
7.	Capricornus	—	—
8.	Aquarius	iLi	pa
9.	Pisces	viLari	dha-1
10.	Aries	—	—
11.	Taurus	taaram	ni-1
12.	Gemini	—	—

According to current nomenclature, its notes are; shadja, suddha rishabha, saadhaaraNa gaandhaara, s'uddha madhyama, pancama, suddha dhaivata and kais'iki nishaada; the corresponding raaga is toodi.

It may be noted that it has the same notes as the major paN cevvazhi derived by iLikkiramam in vaTTappaalai. The maattirai-s of cevvazhippaalai are:

kur	tut	kai	uzh	iLi	viL	taa
3	2	4	4	3	2	4

arumpaalai :

"uzhai becoming kural, it is arumpaalai." (T.25) The

uzhai of arumpaalai coincides with the kural of paalaiyaazh in Libra. Its kural is shifted to Taurus. Vide Diagram 9.

	Sign	Notes	Symbol
1.	Taurus	kural	sa
2.	Gemini	—	—
3.	Cancer	tuttam	ri-2
4.	Leo	kaikkiLai	ga-1
5.	Virgo	—	—
6.	Libra	uzhai	ma-1
7.	Scorpius	—	—
8.	Sagittarius	iLi	pa
9.	Capricornus	—	—
10.	Aquarius	viLari	dha-2
11.	Pisces	taaram	ni-1
12.	Aries	—	—

According to current nomenclature, its notes are; shadja, catus'ruti rishabha, saadhraNa gaandhaara, s'uddha madhyama, pancama, catus'ruti dhaivata and kais'iki nishaada. The corresponding raaga is kharaharapriya.

The mattirai-s of arumpaalai are;

kur	tut	kai	uzh	iLi	viL	taa
4	3	2	4	4	3	2

Its maattirai-s coincide with the s'ruti-s of shadja graama described in Bharata's naaTya s'aastra.

kooTippaalai:

iLi becoming kural, it is kooTippaalai. (T. 25)
The iLi of kooTippaalai coincides with the kural of paalaiyaazh in Libra. Vide Diagram 10.

	Sign	Note	Symbol
1.	Pisces	kural	sa
2.	Aries	—	—
3.	Taurus	tuttam	ri-2
4.	Gemini	—	—
5.	Cancer	kaikkiLai	ga-2

6.	Leo	uzhai	ma-2
7.	Virgo	—	—
8.	Libra	iLi	pa
9.	Scorpius	—	—
10.	Sagittarius	viLari	dha-2
11.	Capricornus	—	—
12.	Aquarius	taaram	ni-2

According to current nomenclature, its notes are shadja, catus'ruti rishabha, antara gaandhaara, s'uddha madhyama, pancama, catus'ruti dhaivata and kaakal. nishada. The corresponding raaga is s'ankaraabharaNa. The maattirai-s of kooTippaalai are ;

kur	tut	kai	uzh	iLi	viL	taa
2	4	3	2	4	4	3

viLarippaalai :

"viLari becoming kural it is viLarippaalai." (T. 25) The viLari of viLarippaalai coincides with the kural of paalaiyaazh in Libra. Its kural is shifted to Aquarius. Vide Diagram 11.

	Sign	Note	Symbol
1.	Aquarius	kural	sa
2.	Pisces	tuttam	ri-1
3.	Aries	—	—
4.	Taurus	kaikkiLai	ga-1
5.	Gemini	—	—
6.	Cancer	uzhai	ma-1
7.	Leo	iLi	ma-2
8.	Virgo	—	—
9.	Libra	viLari	dha-1
10.	Scorpius	—	—
11.	Sagittarius	taaram	ni-1
12.	Capricornus	—	—

According to current nomenclature, its notes are shadja, s'uddha rishabha, saadhaaraNa gaandhara, s'uddha madhyama, prati madhyama, s'uddha dhaivata and kaisiki nishaada.

It skips the pancama but takes both varieties of madhayama. There is no corresponding raaga in South Indian music.

It is possible that it was played on the yaazh but in course of time it fell into disuetude.

The maattirai-s of viLarippaalai are;

kur	tut	kai	uzh	iLi	viL	taa
3	2	4	3	2	4	4

meeRcempaalai :

"taaram becoming kural, it is meeRcempaalai." The taaram of meeRcempaalai coincides with the kural of paalaiyaazh in Libra. Its kural is shifted to Sagittarius. Vide Daigram 12.

	Sign	Note	Symbol
1.	Sagittarius	kural	sa
2.	Capricornus	—	—
3.	Aquarius	tuttam	ri-2
4.	Pisces	kaikkiLai	ga-1
5.	Aries	—	—
6.	Taurus	uzhai	ma-1
7.	Gemini	—	—
8.	Cancer	iLi	pa
9.	Leo	viLari	dha-1
10.	Virgo	—	—
11.	Libra	taaram	ni-1
12.	Scorpius	—	—

According to current nomenclature, its notes are shadja, catus'ruti rishabha, saadharaNa gaandhaara, s'uddha madhyama, pancama, suddha dhaivata and kais'iki nishaada. The corresponding raaga is naTabhairavi.

The maattirai-s of meeRcempaalai are :

kur	tut	kai	uzh	iLi	viL	taa
4	3	2	4	3	2	4

vii. The seven paalai-s were derived from paalaiyaazh by shifting the kural, ATiyaarkku nallaar speaks of two kinds;

valamuRai (right or clockwise method) and *iTa muRai* (left or anti-clockwise method) What he means by valamuRai and iTamuRai is clear when he speaks of the derivation kooTippalai in iTamuRai:

"uzhai being kural, it is kooTippaalai." (T.105)
'In valamurai, we saw that iLi being kural, it is kooTippaalai Its maattirai-s are:

kur	tut	kai	uzh	iLi	viL	taa
2	4	3	2	4	4	3

Taking the iLi of kooTippaalai as kural, the maattirai-s of paalaiyaazh are obtained:

kur	tut	kai	uzh	iLi	viL	taa
4	4	3	2	4	3	2

Taking the uzhai of paalaiyaazh as kural, the maattirai-s of kooTippaalai are obtained : 2 4 3 2 4 4 3.

So in iTamuRai, the tuttam, kaikkiLai etc. of paalai yaazh coincide with the kural of the derived paalai. In valamuRai the tuttam, kaikkiLai etc. of the derived paalai coincide with the kural of paalaiyaazh.

viii. Explaining the verse "aanku..............peyaree" 17 : (13)-T. 1, both the commentators begin with the words, "vaTTappaalai is as follows."

Considering the lapse of several centuries between the original and the two commentaries of Cilappatikaaram the question arises as to how far the materials found in the commentaries are relevant.

The very first verse in arumpata urai commenting on the above mentioned passage describes how the zodiac is to be drawn and how Taurus is to be located in the East and the next two verses proceed to give the position of the seven notes in the different signs of the zodiac.

What is the provocation for bringing in the zodiac?

The cowherdess who arranges the dance makes the girls stand in the order of the musical notes in the old tradition : 17 : (13)-5

In order to explain the old tradition, the commentators are obliged to introduce the vaTTappaalai. Whereas arumpata urai immediately begins to speak of vaTTappaalai, ATiyaarkkunallar introduces it as one of the four paalai-s: linear, square, triangular, and circular.

Obviously the seven notes of the paalai were arranged in a line, square, triangle and circle of which only the last receives elaborate treatment at the hands of the commentators. There is one line in Chapter 3 of Cilappatikaaram which suggests the linear paalai :

"The series of fourteen notes lying in a line" 3 : 89
Regarding the square and the triangle, we have no data either, in Cilappatikaaram and its commentaries or in any other work now available.

Why should the vaTTam (circle) be chosen of the four?

The girls perform the *kuravai,* a dance by seven persons forming a circle.

vaTTam is the word used in the commentaries for *maNTilam* in the original. maNTilam means not only a circle but a zodiac, the orbit of the celestial bodies.

Moreover, in the commentaries themselves, the word maNTalam is used synonymously with vaTTam:

"vaTTam...............*maNTalam* aaKum." (T.12)
"caaN.....................vaTTam tanmiitu
..................*maNTalattai* vai." (T.13)
.........vaTTam kiiRi.........maNTalam ceytu......... (T. 14)
.........maNTalam enRu eN." (T. 15)
"kuravai.........maNTala........." (T. 10A)

That ILankoo, the author of Cilappatikaaram was familiar with the zodiac is proved by his mention of the twelve zodiacal signs : T. 28

That he refers to the association of musical notes with the zodiac is clear from his use of the term *kuTamutal* meaning "starting in the west." This accords with the position of kural in Libra as per the commentaries. Taurus is in the East (T. 7) and Libra in the west.

Excepting for the position of kural in the west, there is no direct data in the original regarding the position of the other notes in the zodiac. But the word, *cennilai,* meaning equidistant has significance when we consider the birth of the notes as given in the commentary (T. 20). The series, taaram, uzhai, kural, iLi, tuttam, viLari and kaikkiLai begins with taaram. Every other note is the fifth of the previous note and has its position in the sign which is the eighth from that of the previous one. So starting from taaram in Leo, all the notes are equidistant (*cennilai*) from each other. The author of Cilappatikaaram has referred to this relationship of the fifths by the word, *paTTaTai* (T. 79)

Thus the position of the seven notes in the zodiac mentioned in the commentaries is in keeping with the old tradition referred to in the original.

Was the author of Cilappatikaaram aware of the intervals of musical notes in terms of 22 maattirais-s described in the commentaries? The delineation of the change of places of the notes giving rise to the scale cempaalai in the new tradition (T. 24) bears eloquent testimony to his knowledge of the 22 maattirai-s.

Does he speak of kural tiripu?

Describing cevvazhippalai, he says that kaikkiLai coincides with kural. (T. 55) According to ATiyaarkku-nallaar's commentary when the kaikkiLai of the new paalai becomes the kural of cempaalai, it is cevvazhippaalai. This is kural tirupu in valamuRai. He describes iTamuRai also when speaking of the new tradition. (T.28)

CHAPTER II

VAMPURU MARAPU, the new tradition

i. The *arankeeRRu kaatai*, chapter 3 of Cilappatikaarm. deals with the debut of Maatavi, the danseuse. In this chapater, the qualifications of the dance master, singer *taNNumai* player, *kuzhal* player, and yaazh player are given. Speaking of the seven paalai-s played on the yaazh, the author speaks of arumpaalai as providing the basis for deriving other scales by kural tiripu. This is referred to as the new tradition.

" In the reverse order,

if kaikkiLai becomes kural, it is paTamulaippaalai :
if tuttam ,, ,, cevvazhippaalai :
if kural ,, ,, arumpaalai.
Thus undergoing a change in their nature :
if taaram becomes kural, it is kooTippaalai :
if viLari ,, ,, viLarippaalai :
if iLi ,, ,, meeRcempaalai " (T. 31)

The maattirai-s of arumpaalai are :

kur	tut	kai	uzh	iLi	viL	taa
4	3	2	4	4	3	2

Taking the kaikkiLai of arumpaalai as kural, the maattirai-s of paTumalaippaalai are obtained :

kur	tut	kai	uzh	iLi	viL	taa
2	4	4	3	2	4	3

Taking the tuttam of arumpaalai as kural, the maattirai-s of cevvazhippaalai are obtained :

kur	tut	kai	uzh	iLi	viL	taa
3	2	4	4	3	2	4

Taking the taaram of arumpaalai as kural, the maattirai-s of kooTippalai are obtained :

kur	tut	kai	uzh	iLi	viL	taa
2	4	3	2	4	4	3

Taking the viLari of arumpaalai as kural, the maattirai-s of viLarippaalai are obtained :

kur	tut	kai	uzh	iLi	viL	taa
3	2	4	3	2	4	4

Taking the iLi of arumpaalai as kural, the maattirai-s of meeRcempaalai are obtained :

kur	tut	kai	uzh	iLi	viL	taa
4	3	2	4	3	2	4

Taking the uzhai of arumpaalai as kural, the maattirai-s of cempaalai are obtained :

kur	tut	kai	uzh	iLi	viL	taa
4	4	3	2	4	3	2

Cempaalai which, in the old tradition was the basis for deriving other paalai-s is here derived from arumpaalai in the new tradition. In the words of the author of Cilappatikaaram :

"It became cempaalai in the new tradition." (T. 29) ATiyaarkkunallaar quotes a verse which gives the location of the notes in the zodiac in the new tradition :

"The seven notes (kural to taaram) respectively lie in Taurus, Cancer, Leo, Libra, Sagittarius, Aquarius and Pisces resembling cempaalai." (T. 17)

In Vide Diagram 9, the word 'neer' meaning 'like or resemble' is significant. Just as cempaalai was the basis for kural tiripu in the old tradition, arumpaalai provides the basis for kural tiripu in the new tradition.

ii. Bharata in his naaTyas'aastra speaks of two *graama-s* (musical scales) :

"There are two graama-s: shaḍja graama and madhyama graama. Each of these two include twenty two s'ruti-s in the following manner ;

s'ruti-s in shaḍja graama are shown below :

three in rishabha, two in gaandhaara, four in madhyama, four in pancama, three in dhaivata, two in nishaada and four in shaḍja.

In the madhyama, graama, pancama should be deficient by one s'ruri." N.S. 28 : 23, 24

There is also another verse in N.S. which gives the s'ruti-s of shaḍja graama as follows:

shaḍja, madhyama and pancama have each four s'ruti-s, nishaada and gaandhaara two each, and rishabha and and dhaivata three each." N.S. 28 : 25 : 26

sa	ri	ga	ma	pa	dha	ni
4	3	2	4	4	3	2

The s'ruti-s of shaḍja graama can be readily seen to coincide with the maattirai-s of arumpaalai.

In relation to shaḍja, the s'ruti-s of the notes of shaḍja graama are as follows :

shaḍja	0
rishabha	3
gaandhaara	5
madhyama	9
pancama	13
dhaivata	16
nishaada	18
shaḍja (octave)	22

Speaking of the relationship between pairs of notes, Bharata says :

"Two notes which are at an interval of nine or thirteen s'ruti-s from each other are *samvaadin* of (having consoname) each other; shaḍja and madhyama, shaḍja and

pancama, rishaba and dhaivata, gaandhaara and nishaada in shaḍja graama." N.S. 28 : 22

"In the madhyama graama, rishabha and pancama are samvaadin," N. S. 28, 23

,,The difference which occurs in pancama when it is raised or diminished by a s'ruti......is *pramaaNa s'ruti.*" N.S. 28 : 24

In relation to shaḍja, the frequency ratios of the notes of shaḍja graama are as follows :

sa			1
ri			10/9
ga	10/9 x 16/15	=	32/27
ma	32/27 x 9/8	=	4/3
pa	4/3 x 9/8	=	3/2
dha	3/2 x 10/9	=	5/3
ni	5/3 x 16/15	=	16/9
sa'	16/9 x 9/8	=	2

Excepting for the pancama, the madhyama graama is identical with the shaḍja graama. As its pancama is at an interval of 9 s'ruti-s from rishabha, its frequency ratio is 10/9 x 4/3 = 40/27. The difference in interval between the pancama of shaḍja graama and that of madhyama graama

= 3/2 divided by 40/27
= 3/2 x 27/40
= 81/80

pramaaNa s'ruti = 81/80

Bharata explains the pramaaNa s'ruti, two-s'ruti, three-s'ruti, and four-s'ruti intervals with the aid of two viiNaa-s with seven strings in each.

ViiNaa 1 is to be tuned to the notes of shaḍja graama and viiNaa 2 to those of madhyama graama.

The s'ruti-s of the notes of the two viiNaa-s in relation to shaḍja will be as follows :

	viiNaa I	viiNaa II
sa	0	0
ri	3	3
ga	5	5
ma	9	9
pa	13	12
dha	16	16
ni	18	18
sa′	22	22

It has already been shown that the difference in interval between the pancama-s of the two graama-s is 81/80 (pramaaNa s′ruti).

Step 1

Bharata says that the notes of viiNaa II should now be tuned to those of shaḑja graama, i.e., keeping its pancama at the 12th s′ruti, all the other notes are to be decreased by one s′ruti.

The s′ruti-s of the notes of viiNaa II in relation to shaḑja of viiNaa I will be as follows :

sa	-1
ri	2
ga	4
ma	8
pa	12
dha	15
ni	17
sa′	21

Step 2

Now gaandaara and nishaada of viiNaa II are to be reduced by one s′ruti so that they merge with the rishabha and dhaivata of viiNaa I, i. e., gaandhara is brought to s′ ruti 3 and dhaivata to s′ ruti 16. All the other notes of viiNaa II are correspondingly reduced by one s′ruti.

The s'ruti-s of the notes of viiNaa II in relation to shaḍja will now be as follows :

sa	-2
ri	1
ga	3
ma	7
pa	11
dha	14
ni	16
sa'	20

The reduction from the gaandhaara of viiNaa II to the rIshabha of viiNaa I is by two s'ruti-s. The interval

is $= 32/27$ divided by $10/9$
$= 32/27 \times 9/10$
$= 16/15$

Now the pancama of viiNaa II is at the 11th s' ruti. F. R. of pancama is 3/2 divided by 16/15
$= 3/2 \times 15/16$
$= 45/32$

The difference in interval between the pancama at step I and the pancama at step 2 is
$= 40/27$ divided by $45/32$
$= 40/27 \times 32/45$
$= 256/243$

Step 3

The rishabha and dhaivata of viiNaa II are to be reduced again by one s'ruti so that they merge with the shaḍja and pancama respectively of viiNaa I. The reduction from the rishabha of viiNaa II to the shaḍja of viiNaa I is 3 s'ruti-s $= 10/9$.

All the other notes of viiNaa II are correspondingly reduced by one s'ruti.

The s'ruti-s of the notes in viiNaa II are now as follows:

sa	-3
ri	0
ga	2

ma	6
pa	<u>10</u>
dha	13
ni	15
sa'	19

The pancama of the viiNaa II is at the 10th s'ruti. The difference in interval between the pancama of viiNaa I and the pancama of viiNaa II at the third step is 3 s'ruti-s = 10/9.

F. R. of pancama of viiNaa II at the third step

= 3/2 divided by 10/9
= 3/2 x 9/10
= 27/20

The interval between the pancama of viiNaa II at the second step and that at the third step

= 45/32 divided by 27/20
= 45/32 x 20/27
= 25/24

Step 4

Now the pancama, madhyama and shaḍja of viiNaa II are reduced by one s'ruti so that they merge with the madhyama, gaandhaara, and nishaada respectively of viiNaa I. All the other notes of viiNaa II are correspondingly reduced by one s'ruti.

The s'ruti-s of the notes of viiNaa II in relation to shaḍja are as follows :

sa	-4
ri	-1
ga	1
ma	5
pa	2
dha	12
ni	14
sa'	18

The pancama of viiNaa II is now at the 9th s'ruti = 4/3. The interval between the pancama of viiNaa I and that of viiNa II at the fourth step is 4 s'ruti-s = 9/8.

The interval between the pancama of viiNaa II at the third and fourth steps

= 27/20 divided by 4/3
= 27/20 x 3/4
= 81/80

F.R. of the four's ruti-s between pancama and madhyama are 81/80, 256/243, 25/24 and 81/80.

81/80 x 256/243 x 25/24 x 81/80 = 9/8.

The exposition by Bharata shows that there are four s'ruti-s between madhyama and pancama and that they are not of equal interval.

iii. At the time Cilappatikaaram was written, much cultural fushion had taken place between the South and the northern parts of the Indian sub-continent. Buddhism had spread far down to the South and even to Ceylon. The most important characters in the story, Koovalan and KaNNaki were Bubbhists, ILankoo aTikal the author of Cilappatikaaram, it is believed by many, embraced Jainism.

"Starting somewhere about 1000 B.C the movement of the Aryans into the South proceeded more or less steadily and peacefully, and had reached its completion sometime before the establishment of the Mauryan empire which included in its fold all India except the extreme South."[5] "All over India the foundations of Indian culture were laid by the fusion of Indo-Aryan and pre-Aryan elements in varying conditions and proportions; and in the languages, literatures and institutions of the South there has survived much more of pre-Aryan India than anywhere else."[6]

The acceptance of the shaḍja graama (arumpaalai) as the basis for deriving new paalai-s goes to show that in the field of music also, such fusion was taking place.

It is reasonable to suppose that along with shaḍja graama, the seven letters, sa ri ga ma pa dha ni, representing its notes were also adopted in the South.

The Sanskrit names of the musical notes, shaḍja, rishabha, gaandhaara, madhyama, pancama, dhaivata, and nishaada are not met with in the text of Cilappatikaaram nor are their symbols, sa ri ga ma pa dha ni. The first recorded evidence to the use of the letters in South India is found in the inscriptions of Kudumiyaamlai, Trichy District, South India. (7th cent. A.D.)[8]

These inscriptions are ascribed to the Pallava king Mahendra Varman I. Passages were inscribed in notation, making use of the letters sa ri ga ma pa dha ni with vowel variations such as *gi nee gl see* etc. These were composed in shaḍja graama, madhyama graama, shaadava, saadhaarita, pancama, kais'ika madhyama and kais'ika. They were intended for the students of music. It will not be wrong to suppose that by that time musicians in the South were familiar with the letter symbols: sa ri ga ma pa dha ni.

In one of Campantar's hymns of the same period, there is a description of girls singing with the *gaandhaara* note as the base.

ATiyaarkku nallaar gives the Sanskrit names of the seven notes: (T. 33). He also quotes a Tamil verse in which are montioned the seven letters; (T. 33).

In the Tamil lexicon, tivaakaram (11th cent. A.D.), it is clearly stated that the letters sa ri ga ma pa dha ni stand for the seven musical notes kural, tuttam, kaikkiLai, uzhai, iLi, viLari, and taaram: (T. 155). Before adopting the symbols, sa ri ga ma pa dha ni, there seems to have been a system, in the Tamil country, of denoting the notes by the letters aa, ii, ee, uu, ai, oo, and au.

In the sangitaa ratnaakara (13th cent. A.D.), some compositions are given in sa ri ga ma notation.[7]

The use of the letters sa ri ga ma pa dha ni for singing as solfa syllables and for writing down in notation could have begun in South India at least as early as the 7th cent. A.D.

iv. When the Pallavas began to rule over the South, their reign brought in its wake a new influx of Sanskrit terms in the fields of music and dance. The Sanskrit word 'raaga' was adopted and in the names of several paN-s we find it incorporated, e.g takkaraakam.*

The Tamil Isai Sangam, Madras, undertook research in the teevaaram paN-s and they have reached conclusions regarding the paN-s and their equivalent raaga-s. Here are a few paN-s with their equivalent raaga-s :

PaN	raaga
naTTapaaTai	naaTTai
kaucikam	bhairavi
caatari	pantuvaraaLi
meekaraakakkuRinci	niilaambari
pazhantakkaraakam	suddha saaveeri
pazhampancuram	s'ankaraabharaNa
kaantaarapancamam	keedaaragauLa
takkeeci	kaambhooji
pancamam	aahiri
viyaazhakkuRinci	sauraashTra
centurutti	madhyamaavati
antaaLikkuRinci	saama

All these paN-s are being popularly sung today as they were some 1,200 years ago, though they are known now by raaga names.

* In Tamil, the written letter 'ka' has the sounds of ka and ga and ha.

CHAPTER III. paN-s in Cilappatikaaram

i. In the chapter on vaTTappaalai, how the four major paN-s were derived has been shown. The seven paalai-s derived from paalaiyaazh were also explained. The paN-s were derived by kural tiripu.

In terms of the notes figuring in them, paN paalaiyaazh is identical with cempaalai;

paN kuRinciyaazh	,,	,,	kooTippaalai;
paN marutayaazh	,,	,,	paTumalaippaalai;
paNcevvazhi	,,	,,	cevvazhippaalai;

But paalai and paN were held to be distinct from each other:

"the state of the paalai and that of the paN" (T. 45) It is not without significance that the paN paalaiyaazh is listed as being born from cempaalai: T. 59.

The word 'paN' is derived from the root 'paNNu' meaning 'to make' or 'to decorate.' It is called 'paN, because it is decorated in eight ways: *eTuttal* etc. *kampitam* (shake) is one of the eight ornaments. (T. 48)

Also, whereas the paalai has seven notes, the paN may have seven, six, or five notes. (T. 46, 63)

ii. *mullaippaN*

When the seven girls forming the circle begin to perform the kuravai dance, the girl standing as kural addresses tuttam standing next to her, "Let us sing the praise of Maayavan in the sweet mullaippaN." tuttam initiates the dance and viLari sings the kuravai songs.

"The singer sings the kural note low, iLi in the middle register, tuttam high and viLari low. Thus she sings for her friend, tuttam standing as her fourth note" (T. 62).

From the verse, we know that mullaippaN has the notes kural, tuttam, iLi and viLari. That it is a *tiRam* (five-tone mode) is clear from a verse in ceekkizhaar's tiruttoNTar puraaNam. (T. 154)

It says that mullaippaN was first played on the *kuzhal* (flute) and adding the raised taaram and uzhai to it, kooTippaalai was played. So the notes omitted in mullaippaN are taaram and uzhai. The remaining five notes are kural, tuttam, kaikkiLai, iLi and viLari.

In terms of current nomenclature, the notes of mullaippaN are shadja, catus'ruti rishabha, antara gaandhaara, pancama and catus'ruti dhaivata. The corresponding raaga is Mohana.

Incidentally, the verse mentioned above also proves that the raaga which corresponds to kooTippaalai is s'ankaraabharaNa. If kaakali nishaada (raised taaram) and uzhai (s'uddha madhyama) are added to the notes of Mohana, the raaga is s'ankaraabharaNa.

It may be noted that the names of the paN-s, mullaippaN paalaiyaazh, kuRinciyaazh, marutayaazh, and neytaliyaazh were named after the five fold divisions of the ancient Tamil land, viz.

mullai	—	forest region
paalai	—	desert ,,
kuRinci	—	mountainous region
marutam	—	cultivated land
neytal	—	sea-shore

The cowherd women belonged to the mullai region and they were dancing and singing to the praise of Maayavan, the god of the mullai land; it is but fitting that they sing the mullaippaN pertaining to their land.

Only the four paN-s paalaiyaazh, kuRinciyaazh, marutayaazh and neytaliyaazh (cevvazhi) were called the major paN-s. The mullaippaN was not included as a major paN, because it was a tiRam.

The tiruvaacakam (Tamil hymns) of MaaNikkavaacakar (8th cent. A.D.) are traditionally being sung in mullaippaN (Mohana raaga).

It may be noted that the notes of mullaippaN are identical with the five *kiLai* notes. (T. 40)

ATiyaarkkunallaar states that mullaiyaazh was also indicated as the poet had said, "From the west......" (T. 75). That the notes of mullaippaN were also assigned their respective positions in the zodiac may be inferred from this. Its five notes would have their positions in the zodiac as indicated in Diagram 13:

	Sign	Note	Symbol
1.	Libra	kural	sa
2.	Scorpio	—	—
3.	Sagittarius	tuttam	ri-2
4.	Capricornus	—	—
5.	Aquarius	kaikkiLai	ga-2
6.	Pisces	—	—
7.	Aries	—	—
8.	Taurus	iLi	pa
9.	Gemini	—	—
10.	Cancer	viLari	dha-2
11.	Leo	—	—
12.	Virgo	—	—

Four other paN-s could be derived from mullaippaN by kural tiripu. If tuttam of mullaiippaN is taken as kural, the kural of the new paN falls in Sagittarius. Vide Diagram 14 :

	Sign	Note	Symbol
1.	Sagittarius	kural	sa
2.	Capricornus	—	—

3.	Aquarius	tuttam	ri-2
4.	Pisces	—	—
5.	Aries	—	—
6.	Taurus	uzhai	ma-1
7.	Gemini	—	—
8.	Cancer	iLi	pa
9.	Leo	—	—
10.	Virgo	—	—
11.	Libra	taaram	ni-1
12.	Scorpio	—	—

The notes of the derived paN are shaḍja, catus'ruti rishabha s'uddha madhyama, pancama, and kais'ika nishaada. The name of the paN is centurutti and it is one of the teevaram paN-s. The corresponding raaga is Madhyamaavati.

If the kaikkiLai of mullaippaN is taken as kural, the kural of the new paN falls in Aquarius. Vide Diagram 15.

	Sign	Note	Symbols
1.	Aquarius	kural	sa
2.	Pisces	-	-
3.	Aries	-	-
4.	Taurus	kaikkiLai	ga-1
5.	Gemini	-	-
6.	Cancer	uzhai	ma-1
7.	Leo	-	-
8.	Virgo	-	-
9.	Libra	viLari	dha-1
10.	Scorpio	-	-
11.	Sagittarius	taaram	ni-1
12.	Capricornus	-	-

The notes of the derived paN are shaḍja, saadhaaNa gaandhara, s'uddha madhyama, s'uddha dhaivata, and kais'iki nishaada. The corresponding raaga is hindoola.

If the iLi of mullaippaN is taken as kural, the kural of the derived paN falls in Taurus. Vide Diagram 16:

	Sign	Note	Symbol
1.	Taurus	kural	sa
2.	Gemini	-	-
3.	Cancer	tuttam	ri-2
4.	Leo	-	-
5.	Virgo	-	-
6.	Libra	uzhai	ma-1
7.	Scorpio	-	-
8.	Sagittarius	iLi	pa
9.	Capricornus	-	-
10.	Aquarius	viLari	dha-2
11.	Pisces	-	-
12.	Aries	-	-

The notes of the derived paN are shaḍja, catus'ruti rishabha, s'uddha madhyama, pancama, and catus'ruti dhaivata. The name of the paN is pazhantakkaraakam which is one of the teevaaram paN-s. The corresponding raaga is s'uddha saaveeri.

If the viLari of mullaippaN is taken as kural, the kural of the new paN falls in Cancer. Vide Diagram 17:

	Sign	Note	Symbol
1.	Cancer	kural	sa
2.	Leo	-	-
3.	Virgo	-	-
4.	Libra	kaikkiLai	ga-1
5.	Scorpio	-	-
6.	Sagittarius	uzhai	ma-1
7.	Capricornus	-	-
8.	Aquarius	iLi	pa
9.	Pisces	-	-
10.	Aries	-	-
11.	Taurus	taaram	ni-1
12.	Gemini	-	-

The notes of the derived paN are shaḍja, saadhaaraNa gaandhaara, s'uddha madhyama, pancama, and kais'iki nishaada. The corresponding raaga is s'uddha dhanyaasi.

iii. Other paN-s mentioned in Cilappatikaaram and the commentaries :

paalaippaN : This is one of the four major paN-s. It is also called paalaiyaazh and is derived from cempaalai. The arrangement of its notes is described to be auspicious. (T. 47) It was also used in the teevaaram hymns for singing tiruttaNTakam composed by Appar and sung without taaLam. The equivalent raaga is harikaambhooji.

kuRinci : This is one of the four major paN-s. It is described as being sung by kuRava women. The songs sung by kuRava women in Tamil land even today are called "kuRam" and have the same notes as the paN kuRinci.

cevvazhippaN : This is one of the four major paN-s. Maatavi sang the kaanalvari song in this paN playing it on the yaazh.

marutappaN : It is one of the four major paN-s. The equivalent raaga is KalyaaNi. Its classifications aruku, puRam and peruku, however, are not intelligible.

kaucikam : A song is quoted in ATiyaarkkunallaar in paN kaucikam. It is one of the paN-s in teevaaram. The equivalent raaga is bhairavi. It has the notes of arumpaalai in the ascent and those of meeRcempaalai in the descent.

nootiRam : It is also called puRaniirmai. It is one of the paN-s in teevaaram. It is sung at the dawn of the day. The equivalent raaga is bauli.

aacaantiRam:This is also called kaantaara pancamam. It is one of the paN-s in teevaaram. The equivalent raaga is keedaaragauLa.

ciiraakam : It is the 'aruku' of cevvazhi. The raaga is s'riiraaga. This is described in sangiita ratnaakara as a derivative from shaḍja graama.

aakari : This is given as a paN derived from cempaalai. The raaga of this name is described in svara meeLa kalaanidhi and is now known as raaga kiiravaaNi.

toodi : This is also given as one of the eight paN-s derived from cempaalai. The raaga is very popular in South India.

kaantaaram : It is a paN derived from cempaalai. This is a paN in teevaaram. The equivalent raaga is navarooju.

Centurutti; This is a paN derived from cempaalai. It is one of the paN-s in teevaaram. It is note-worthy that its notes are related as fifths starting from taaram: taaram uzhai, kural, iLi and tuttam. The equivalent raaga is madhyamaavati. Like paalaippaN, this is also considered as auspicious.

In modern karnatic music, five raagas are considered as major and they are often taken up for elaborate *aalaapana :*

1. (hari) kaambhooji
2. s'ankaraabharaNa
3. kalyaaNi
4. toodi'
5. bhairavi.

It is of interest to note that the first four correspond to the four major paN-s :

raaga	paN	paalai
(hari) kambhooji	paalaiyaazh	cempaalai
s'ankaraabharaNa	kuRinciyaazh	kooTippaalai
kalyaaNi	marutayaazh	paTumalai
toodi	cevvazhiyaazh	cevvazhi

With the exception of viLarippaalai, all the paalai-s have been in currency to this day.

iv. 103 paN-s :

ATiyaarkku nallaar classifies the paN-s derived from the four major paN-s into *puRam*, *aruku* and *peruku :*

		puRam	aruku	peruku
1.	paalai	teevaaLi	ciirkooTikam	naakaraakam
2.	kuRinci	centu	maNTilam	ari
3.	marutam	aakari	caayaveeLarkolli	kinnaram
4.	cevvazhi	veeLaavaLi	ciiraakam	canti

What the terms, puRam, aruku and peruku mean is beyond comprehension.

Both the commentators say that the total number of paN-s is 103. But how the number is arrived at is baffling. "The 12 paalai-s and their 91 *uru-s* go to make the 103 paN-s (T. 30).

Neither how the twelve paalai-s are derived nor what is meant by 'uru' is clear.

The names of the 103 paN-s, however, are found in the Tamil lexicon, tivaakaram (II th cent.). I am giving their names here. One may form an idea as to how many of them figure among the teevaaram paN-s and how many have come to be known as raaga-s.

I have indicated the former with the letter 't' and the latter with the letter 'r'. I have also underlined such of the paN-s as have the word *raaga* incorporated in their names.

The names of the 103 paN-s

1. paalaiyaazh
2. teevataaLi
3. nirupatunka*raakam*
4. naaka*raakam*
5. kuRinciyaazh
6. centu
7. maNTaliyaazh
8. ari
9. marutayaazh
10. aakari - r
11. caaya veeLarkolli
12. kinnaram
13. cevvazhiyaazh
14. veeLaavaLi
15. cii*raakam* - r
16. canti
17. takka*raakam* - t
18. antaaLipaaTai

19. anti
20. manRal
21. nootiRam, neertiRam (puRaniirmai) - t
22. varaaTi
23. periyavaraaTi
24. caayari
25. pancamam - t, r
26. tiraaTam
27. azhunku
29. cooma*raakam*
30. meeka*raakam*
31. 32. kolli varaaTl
33. kaantaaram-t
34. cikaNTi
35. teecaakkari
36. curutikaantaaram
37. naTTapaaTai, naivaLam - t
38. antaaLi
39. malakari - r
40. vipanci
41. (cutta?) kaantaaram
42. cerunti
43. kauTi - r
44. utayakiri
45. pancuram
46. pazhampancuram – t
47. meeka*raaka*kkuRinci – t
48. keetaaLikkuRinci
49. kauvaaNam
50. paaTi - r
51. cuurtunka*raakam*
52. naakam
53. maruL
54. pazhantakk*raakam* - t
55. tivviyavaraaTi
56. mutirnta intaLam
57. anuttirapancamam
58. tamizh kuccari
59. aruTpuri

60. naaraayaNi - r
61. kuRinci - t, r
62. naTTa*raakam* - t
63. irraamakkiri - r
64. viyaazhakkuRinci - t
65. centiRam
66. takkaNaati
67. caavakakkuRinci
68. aanantai
69. takkeeci - t
70. kolli - t
71. aariya kuccari
72. naakatoni
73. intaLam - t
74. caataaLi
75. tamizh veeLar kolli
76. kaantaarapancamam - t
77. paakkazhi
78. tattaLa pancamam
79. maatunka*raakam*
80. kaucikam - t
81. piyantai - t
82. ciikaamaram - t
83. caaral
84. caankimam
85. kuRaNTi
86. aariya veeLar kolli
87. taNukkaanci
88. viyantam
89. yaazhpatam
90. taaLi
91. koNTaikkiri
92. ciivani
93. yaamai
94. caaLarpaaNi
95. naaTTam - r
96. taaNu
97. mullai
98. caataari - t

99. pairavam - r
100. kaanci
101. taarappaNTiRam
102. paiyuLkaanci
103. paTumalai

v. *aaLatti* is improvised elaboration of the paN. It is of three kinds: (T. 71, 72)

paNNaaLatti: It is elaboration without words. however, the letters, *ta*, *na*, and *m* are used. Even today the letters used in *raaga aalaapana* are the same. The other two varieties of aaLatti, viz. *kaaTTaaLatti* and *niRa aaLatti* use words.

kaaTTaLatti: This is done with *taaLam*. Such improvisation is called *'niraval'*.

niRa aaLatti: This is sung for dance. A verse is sung in a particular paN and the dancer performs *abhinayam* comprising of facial and hand gestures to suit the meaning of the words sung.

Some teevaram hymns like *tiruttaaNTakam tiruviruttam* and *tiruneericai* are traditionally sung in paN-s without taaLam.

CHAPTER IV. Instruments mentioned in Cilappatikaaram and its Commentaries.

i. Describing the dance debut of the courtesan, Maatavi, the poet gives the names of the instruments which provided the background music : kuzhal, yaazh, taNNumai, muzhavu and aamantirikai. Pukaar, the capital of the coozha kingdom is said to have had a whole street inhabited by the musicians. It seems music was being played there night and day and the drums could never rest.

The musical instruments were classified into four kinds : *narampukkaruvi* (stringed instruments), *toolkaruvi* (lit. skin or membrane instruments), *tuLaikkaruvi* (lit. instruments with holes, wind instruments) and *kancakkaruvi* (lit. bronze instruments, cymbals).

ii. The yaazh and the viiNai are the two stringed instruments mentioned in Cilappatikaaram.

The yaazh is classified into four kinds according to the number of strings it had : (T. 82)

1.	*peeriyaazh*	21 strings.
2.	*makarayaazh*	19 ,,
3.	*cakooTayaazh*	14 ,,
4.	*cenkooTTiyaazh*	7 ,,

ATiyaarkkunallar mentions *aatiyaazh* (lit. earliest yaazh) which had a thousand strings but says that it became obsolete. (T. 73)

pattar, kooTu aaNi, narampu, tivavu, maaTakam, tantirikaram and *oRRuRuppu* are the parts of the yaazh mentioned in Cilappatikaaram.

pattar-lit, wooden trough; it seems to have been the resonator. In other works, it is described as being covered with skin. But in Cilappatikaaram, there is no mention of it.

kooTu-lit. horn or tusk. This is described as being bent in shape. When the yaazh is played, the right hand of the player is said to be touching the kooTu.

aaNi-peg

narampu-string (lit. gut-string)

tivavu-leather strap with which the strings are fastened.

maaTakam-It is the part which helps to tighten or loosen the strings. It is oblong in shape and has holes. The pegs were inserted in the holes of the maaTakam. "The left hand four fingers grip the maaTakam" (T. 96) obviously for tuning with the aid of the pegs.

tantirikaram-It is the part to which one end of the strings is attached. The other end is fastened by the tivavu. The length is 20¼" and is described as running across.

oRRuRupp- It is the part attached to the strings and the pattar. oRRu also means *taaLa* or time-measure.

The instrument was pretty like a beautiful maiden and had cover made of cloth with colorful designs. (T. 81) The player did obeisance to the yaazh before he or she began to play it.

The yaazh was used as accompaniment to singing. Koovalan and Maatavi sing the kaanalvari songs on the sea-shore playing the yaazh as accompaniment. It was also one of the instruments forming part of the orchestra which provided the background music for dance. The yaazh followed the kuzhal. (Tr 81)

We have literary evidence for the yaazh being used as accompaniment for the voice up to the 7th century A.D.

Campantar was accompanied on the yaazh by tiruniila kaNTa yaazhppaaNar when he sang his hymns.

The fretted viiNai came to be used at about the same time and the yaazh slowly disappeared from South India. In North India, however, a zither-like instrument, called *svaramandala* is still used by some singers for accompaniment. Tuning of the yaazh: The seven-stringed CenkooTTiyaazh had its strings tuned from uzhai to kaikkiLai: (T. 107)

1. uzhai
2. iLi
3. viLari
4. taaram
5. kural
6. tuttam
7. kaikkiLai

The fourteen strings of the cakooTayaazh were also tuned from uzhai to kaikkiLai : four in the lower octave, seven in the middle octave and three in the higher octave:

Lower octave : uzhai, iLi, viLari and taaram :

Middle octave : kural, tuttam, kaikkiLai, uzhai, iLi, viLari, and taaram.

Higher octave : kural, tuttam and kaikkiLai.

ATiyaarkkunallaar says that as uzhai is the first note born from taaram, it is the first note in the yaazh (T. 105). Even in the viiNai till the 17th century, the first string used to be tuned to madhyama (uzhai). Such a tuning for the viiNai is described in the svara meela kalaanidhi (1550).

The names of the four major paNs include the word 'yaazh' in them. If the strings of the yaazh were tuned to the notes of, say, kuRincippaN, the term 'kuRinciyaazh could refer to the paN as well as the instrument. The seven notes in the yaazh could be tuned to those of the four major paN-s, paalaippaN, kuRincippaN, marutappaN or cevvazhippaN. (T. 110, 85)

As the *mullai yaazh* is also mentioned, the instrument could have strings tuned just to the five notes of mullaippaN, kural, tuttam, kaikkiLai, iLi, and viLari. (T. 75)

The technique of yaazh playing is referred to in Cilappatikaaram by the terms, *paNNal, aaraaytel* etc., and *vaartal, uRazhtal* etc. In paNNal, the tuning of the strings is described : "The right hand thumb plucks kural and the little finger plucks iLi." (T. 91) From this, we may guess that the yaazh was a harp like instrument. The spacing of the strings could be roughly 9", the length of a hand span. uRazhtal is plucking every third and fourth string. (T. 93) It is evident from paNNal and uRazhtal that they tuned the strings by fifth, third and fourths.

The *viiNai*, mentioned only twice in Cilappatikaaram, is referred to as the instrument of the celestial sage *naaratan*. Owing to an incident which occurred during her dance in the court of *Intiran*, the king of the gods, *Uuravci* had to be born on the earth as a courtesan and along with her, viiNai also came down to stay on the earth. ATiyaarkku-nallaar has this story (C. 6 : 18-25)

The *teevaaram* hymns contain numerous references to the viiNai but there are no clues in them as to its structure.

The inscriptions in Kudumiyaamalai (7th cent. A.D.) mention *parivaadinii*, a viiNai with seven strings.

In one of his hymns, MaaNikkavaacakar (8th cent. A.D.) states that the yaazh and viiNai were played simultaneously. The harp-like instrument was probably referred to as yaazh and the instrument with finger-board as viiNai.

Though there are sculptures of the fretted viiNai in some South Indian temples built in the 11th cent. A.D., the first mention of it occurs only in the sangiita ratnaakara (13th Cent. A.D). The viiNaa called *kinnarii* had 13 frets made of eagle-bone. (6 : 262)

At first, the frets were moveable so that they could be adjusted to suit any particular raaga. It seems frets for

only seven notes in an octave were fixed on the viiNai. The svara meela kalaanidhi speaks of *eeka raaga viiNaa* i.e. the instrument had the notes of one particular raaga. (3 : 11-17)

The present viiNai with 24 frets fixed in hard wax was designed by Govinda Dikshita in the beginning of the 17th century. 9

Caariira viiNai : the human voice is referred to as the body-viiNai. (T. 115)

iii. The kuzhal is an instrument frequently mentioned in Cilappatikaaram and is one of the earliest instruments. It held a prominent place in the orchestra providing the music for dance; in fact, it led the orchestra. The yaazh and the other instruments followed it. (T. 81)

It was usually made of bamboo, though it was sometimes made of bronze, rosewood etc. ATiyaarkkunallaar states that bamboo is best. (T. 121)

The total length of kuzhal is 15". The circumference is 3 and 3/8." The left side is closed and the tip has a bronze ring around it. (T. 122) The mouth hole is made at a distance of 1½" from the left tip. The right end is left open.

Eight finger-holes are made, the first at a distance of 5¼" from the mouth-hole and the last at a distance of 1½" from the right tip. The space between two consecutive finger holes is 3/4". (T. 123) Vide Diagram 18.

The distance between the first and the eighth finger-hole is 6 and 3/4". The seven spaces between the finger-holes take up 3/4 x 7 = 5¼". So, 1½" may be presumed to be the space occupied by the holes themselves.

Even today, the holes are made in the South Indian flute by hand with simple tools and not with any precision instruments. So neither the size of the holes nor their location could be exact. I understand that they make

minor adjustments in the size of the holes with the aid of wax.

The verse quoted by ATiyaarkkunallaar gives the fingering system for the kuzhal. (T. 124) The eighth hole at the right end is called *muttirai* and is always left open. The first three holes are closed by the index, middle and ring fingers of the left hand; the remaining four holes are closed by the index, middle, ring and little fingers of the right hand. Vide Diagram 20.

This is the fingering system that prevails to this day in the South Indian flute. It is also the same for the *naagasvaram*, a double reed instrument like the oboe, very popular in South India.

The seven notes of cempaalai are played in the kuzhal by fully openig and closing some or all of the seven holes, the eighth hole at the right end remaining always open.

If all the holes are open, the note produced is kaikkiLai. The notes get lower in pitch from left to right: kaikkiLai, tuttam, kural, taaram, viLari, iLi and uzhai. (T. 120)

It may be noted that this corresponds to the tuning of the strings of the yaazh from uzhai to kaikkiLai. (T. 107)

If uzhai is taken as kural and the scale played, it is kooTippaalai.

In the South Indian flute and naagasvaram, the notes of the raaga, harikaambhoji, corresponding to cempaalai are produced if the holes are opened and closed fully. There is the Tamil saying, "kaampu uuti kaampooti," which means, "if you just play the flute, there is kaampooti." The semi-tones ri-1, ga-2, dha-1 and ni-2 are produced by partial opening of the holes.* ma-2 is produced by closing the first six holes.

---

* P. Sambamoorthy's diagram has the sixth note partially open for ma-2, *the flute*, p. 70.

Wheras in the South Indian flute and naagasvaram, shaḍja (kural) is produced by closing the first two holes, in the North Indian flute, it is produced by closing the first three holes.

Just as there was mullaiyaazh with the strings tuned to the five notes of mullaippaN, mullaikkuzhal was a kuzhal with just five holes. (T. 51)

konRaikkuzhal, made out of the fruit of the *konRai* tree and *aampal kuzhal* with the tip made in the shape of the aampal flower are the other varieties of kuzhal mentioned in Cilappatikaaram.

cankam (conch) is used in South Indian temples during daily service. It is also used in funeral rites and as accompaniment in folk-singing.

kompu - a horn; is also used for funeral rites.

cinnam, also called *tiruccinnam,* is made of brass and has two pipes about six feet in length. It is widely used in processions held during temple festivals in South India.

iv. In the orchestra providing the music for dance, three percussion instruments are mentioned: taNNumai, muzhavu and aamantirikai as against one wind instrument, kuzhal, and one stringed instrument, yaazh. (T. 81) In the verse quoted by ATiyaarkkunllaar (T. 129), as many as 31 percussion instruments are listed. Of all these, taNNumai is given the first place.

taNNumai is also called 'mattaLam'. The word 'maataLam' is made up of two terms : 'mattu, meaning 'sound' and 'taLam' meaning 'base.' It provides, as it were. the base for all the other instruments. It is made of wood and barrel-shaped, the middle part being slightly convex. The two faces are covered with skin. The right face has what is called *maarccanai* applied to it, a black paste of powdered coke and cooked rice. The right face is tuned to the tonic note of the singer or instrument and the left face tuned to the same note an octave lower, by applying

a moistened paste of grain-flour. The bass tone of the taNNumai is referred to in T. 125.

The taNNumai wields a sort of control over the other instruments. When they tend to sound too loud, it suppresses them; when their sound is deficient, it fills up. It also helps maintain a continuity of sound by providing cross-rhythmic accompaniment. (T. 127)

Muzhavu is a pot made of baked clay with the mouth covered with skin. In some South Indian temples, a potlike instrument with five faces covered with skin is still being used. It is called *pancamukha vaadyam*, meaning the five-faced instrument.

The pot *(ghaTam)* made of baked clay provides secondary accompaniment in South Indian conserts along with mrdangam, the Sanskrit name for taNNumai.

aamantirikai is also called *iTakkai*, *aavanci* or *kuTukkai*. 'iTa' means 'left' and kai' means 'hand.' It gets its name because it is held in the right hand and played with the left hand. It is covered with cow-skin. This instrument is an indispensable one in the *kathakali* dance of Kerala, in the west coast of the Indian peninsula.

The umbrella, sword and the *muracu*, drum, were considered sacred for the kings in the ancient Tamil country. The royal muracu was placed on a cot and was held in great esteem. It was carried on an elephant with pomp played before royal proclamations were made. It was used in battles and its sound is described as resembling that of thunder. (T. 136)

paRai - a circular drum used during weddings, temple festivals and processions, and also at funerals. The *naazhikaippaRai* was used to indicate the time of day.

ciRupaRai is a smaller-sized circular drum, the face being covered with skin of *uTumpu*, a reptile of the lizard

family. This is now called *kanjira* and is in use in South Indian concerts providing secondary accompaniment, like the ghaTam mentioned above.

Of the 31 percussion instruments listed in the commentary, many are not identifiable.

kancakkaruvi means an instrument made of bronze.

paaNTil is the Tamil name for *taaLam*. This is used in dance and hymnal singing. (cymbals)

CHAPTER V. URU or Musical forms in Cilappatikaaram

i. Cilappatikaaram is described by the author himself as urai iTai iTTa paaTTuTai ceyyuL, which means a work comprising of verses interspersed with prose and musical compositions. A number of songs like *kaanalvari, kuravaippaaTal* etc. are found in Cilappatikaaram.

Uru, vari, paaTal, paaTTu, paaN are synonyms meaning song. The word 'uru' means shape or form. The paN assumes a form as it were, when a uru is set in a paN. The composed melodic line and the rhythm help define the shape. Though the texts of the songs are there, we have no clues as to how their music would have sounded. In the case of the aaycciyar kuravai songs beginning with the words, *kanRu kuNilaa,* we know that they were sung in mullaippaN. In one of the kaanalvari songs, it is mentioned that the song was sung in cevvazhi and that for the next song, the paN was changed. The following are some of the types of songs found in Cilappatikaaram :

mankala vaazhttuppaaTal : benedictory song.

kaanalvari : song about the sea and the sea-shore.

aaRRuvari : song in praise of a river.

kantukavari : song sung by girls when playing with a ball.

ammaanaivari : song sung by girls when playing with colored wooden balls called ammaanai.

uucalvari : song sung when swinging.

vaLLaippaaTTu : song sung by women while pounding grain with the pestle.

eermankalam : song in praise of the plough, and

mukavaippaaTTu : song sung when measuring grian are also mentioned in Cilappatikaaram.

ii. According to the verse quoted from *icainuNukkam,* (T. 141) there were ten kinds of musical compositions *centuRai, veNTuRai, perunteevapaaNi, ciRuteevapaaNi, muttakam, peruvaNNam, aaRRuvari, kaanalvari, virimuraN* and *talaipookumaNTilam.* According to another verse from *pancamarapu* (T. 142), the number is nine : *cintu, cavalai, tiripatai, camapaataviruttam, centuRai, veNTuRai, perunteevappaaNi, ciRuteevapaaNi* and *vaNNam.*

For kaanalvari and aaRRuvari, there are examples in Cilappatikaaram itself.

cintu : This is a type of folk-song. kaavaTiccintu and noNTiccintu are still being sung in Tamil land.

tiripatai : It is a song with three feet. The aaycciyar kuravai songs in Cilappatikaaram provide good examples of this type.

camapaataviruttam : It is a song in which all the feet are of equal length.

vaNNam has 16 feet.

teevapaaNi: teevaaram and tivviyappirapantam fall in this category. tee = God; vaaram = song. tivviya- of God pirapantam-composition.

The three parts of a uru are *mukanilai, koccakam* and *nuri.* Now they go by the names *pallavi, anupallavi* and *caraNam, ukkiram, turuvai, aapookam* and *pirakalai* are also said to be the parts of a *pirapantam.* But these terms are no longer in currency.

iii. *taaLam* or time measure is referred to in Cilappatikaaram as *ciir, oRRu* and *paaNi*. Before the seven girls begin to dance, they are described as studying the ciir (taaLam) that was going to be used for the dance.

Offering the yaazh to Koovalan at the seashore, Maatavi says, "I am not commanding; but may I know in what taalam you are going to sing and play?"

The sage naarathan is described as plucking strings in the yaazh to mark the taaLa beat.

The tooriya maTantai, the aged dancer, who provides the music for the dance is said to mark the beats.

In arumpata urai, the five taaLams of which caccapuTam is the first, eeka taaLam and paarvatii loocanam are mentioned.

The taLam was kept by pressing or beating with the hand and raising it. The duration was called by the name maattirai.

koTTu : pressing : duration is half maattirai.

acai : beating and raising; duration is 1 maattirai

tuukku: beating and lifting; 2 maattirai.

aLavu : beating and maintaining the sound for the duration of 3 mattirai-s.

It is to be noted that no counting by fingers as at present is involved here. The present system of taaLam seems to have come into the vogue in South India about the 15th century. It is based on the seven taaLa-s called suuLaadi sapta taaLa-s: dhruva, maThya, ruupaka, jhampa, tripuTa, aTa, eeka.

The suuLaadi taaLas are based on three anga-s (constituent parts): laghu, drutam and anudrutam of which laghu is a variable.

The older system of 108 taaLa-s was based on six angas:

anudrutam	1 akshara duration.
drutam	2 akshara duration.
laghu	4 akshara duration.
guru	8 akshara duration.
plutam	12 akshara duration.
kaakapaada	16 akshara duration.

caccapuTam referred to in arumpata urai is mentioned in Bharata's naaTya s'aastra.

eeka taaLam is ane of the 108 taaLam-s as well as the last of the suuLaadi taaLa-s. In the former, its duration is half a maattirai. But in the latter, it is a variable. It may have 3, 4, 5, 7, or 9 akshara-s, made up of one beat and counting of fingers.

paarvatiiloocanam, according to arumpata urai, has sixteen maattirai-s. But in the scheme of 108 taaLa-s, it has fifteen maattirai-s.

The total number of taaLa-s is 41 according to arumpata urai but we do not have any other work containing information about this. *aaRanmaTTam* and *eTTan maTTam* mentioned in arumpata urai are not also intellgible.

The seven *tuukku-s* based on the number of *ciir-s* (syllables) contained seem to indicate *gati* or *naTai*, the internal subdivisions of the taaLa division, *akshara*.

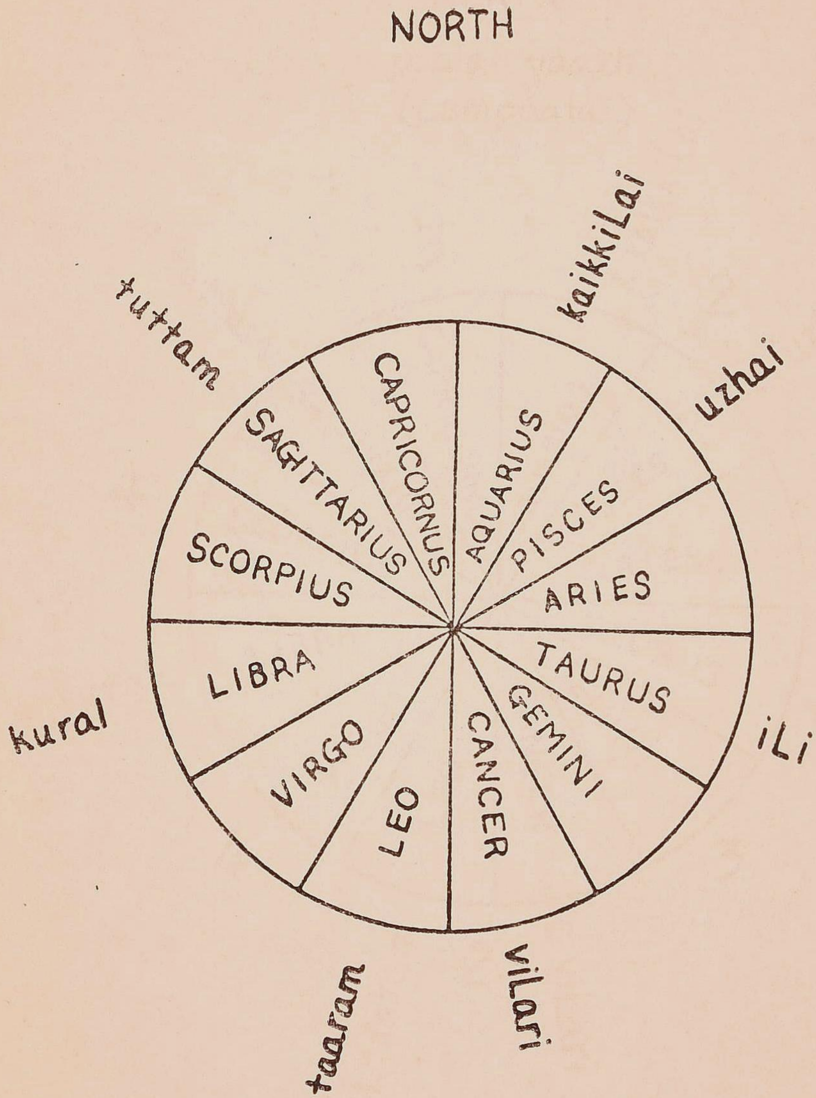

NORTH
kaikkiLai
tuttam
uzhai
CAPRICORNUS
SAGITTARIUS
AQUARIUS
PISCES
SCORPIUS
ARIES
LIBRA
TAURUS
GEMINI
CANCER
VIRGO
LEO
kural
iLi
taaram
viLari

Diagram 1.

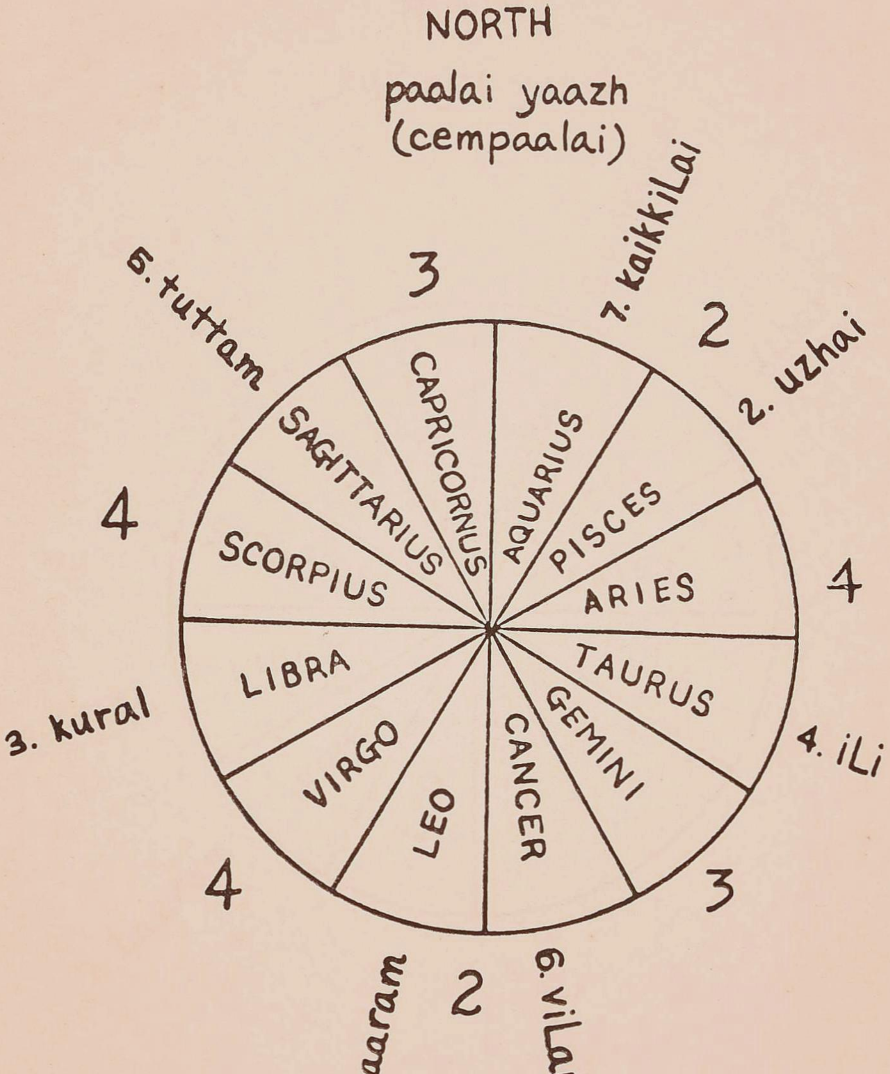

NORTH
paalai yaazh
(cempaalai)
7. kaikkiLai
2
2. uzhai
3
5. tuttam
4
4
4. iLi
3. kural
4
3
1. taaram
2
6. viLari
CAPRICORNUS
AQUARIUS
PISCES
ARIES
TAURUS
GEMINI
CANCER
LEO
VIRGO
LIBRA
SCORPIUS
SAGITTARIUS

Diagram 2.

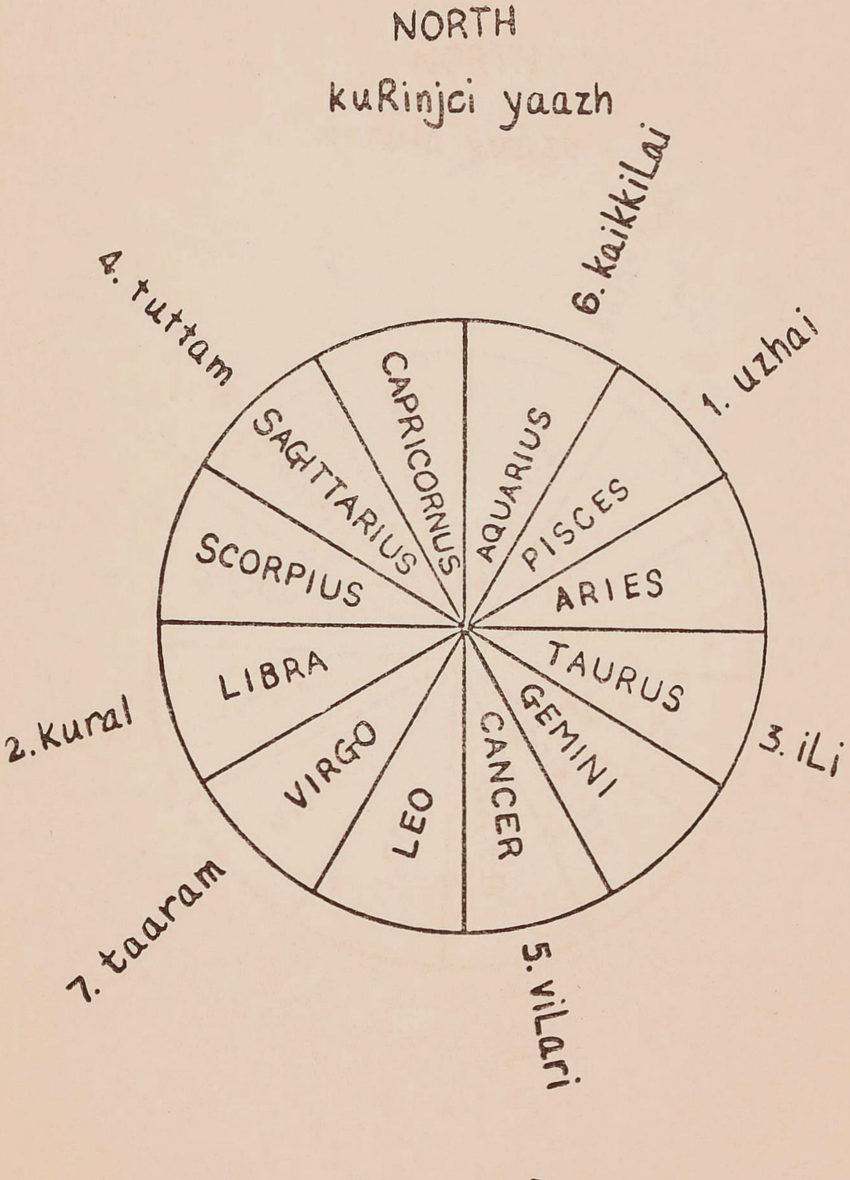

NORTH
kuRinjci yaazh
6. kaikkiLai
4. tuttam
1. uzhai
CAPRICORNUS
SAGITTARIUS
AQUARIUS
PISCES
SCORPIUS
ARIES
TAURUS
LIBRA
GEMINI
2. kural
CANCER
3. iLi
VIRGO
LEO
7. taaram
5. viLari

Diagram 3.

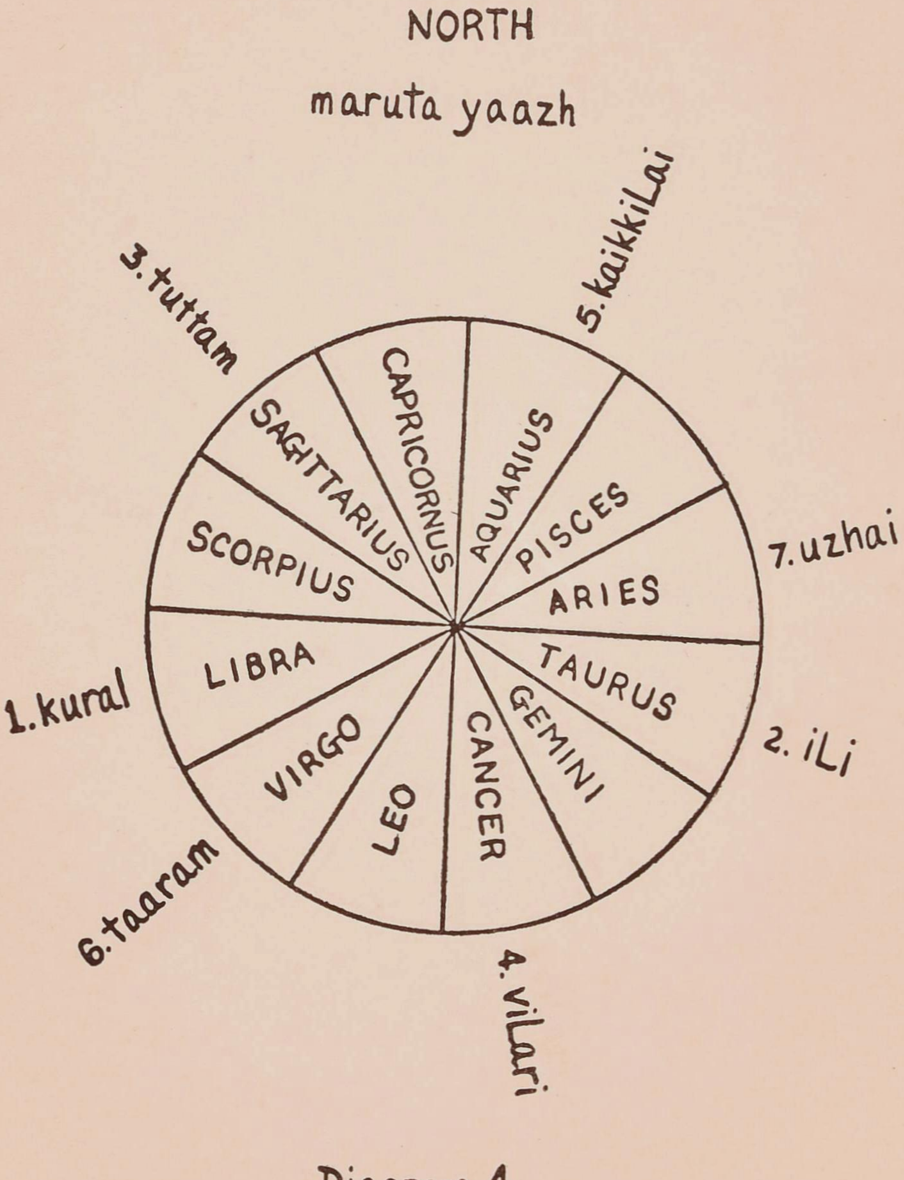

NORTH
maruta yaazh
5.kaikkiLai
3.tuttam
7.uzhai
1.kural
2.iLi
6.taaram
4.viLari
CAPRICORNUS
SAGITTARIUS
AQUARIUS
PISCES
SCORPIUS
ARIES
LIBRA
TAURUS
GEMINI
VIRGO
CANCER
LEO

Diagram 4.

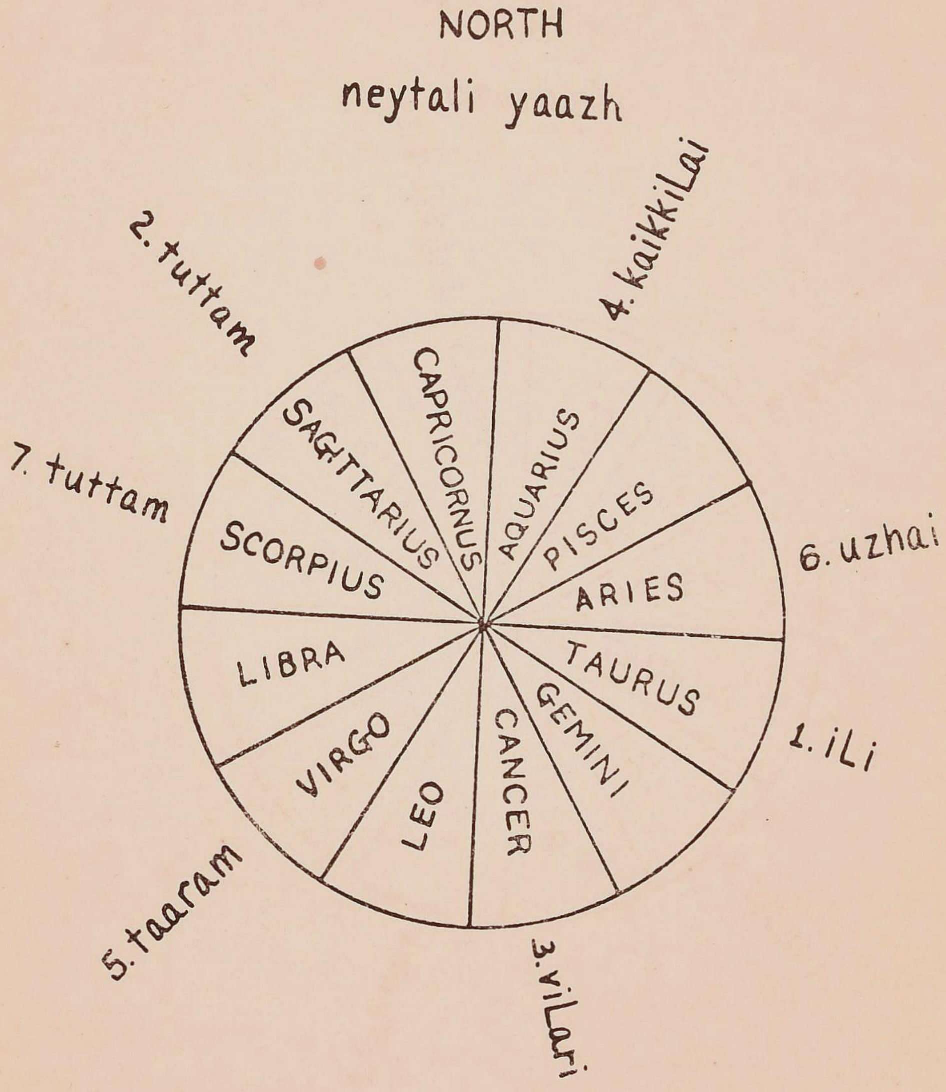

NORTH
neytali yaazh
2. tuttam
4. kaikkiLai
7. tuttam
6. uzhai
1. iLi
5. taaram
3. viLari
CAPRICORNUS
AQUARIUS
PISCES
ARIES
TAURUS
GEMINI
CANCER
LEO
VIRGO
LIBRA
SCORPIUS
SAGITTARIUS

Diagram 5.

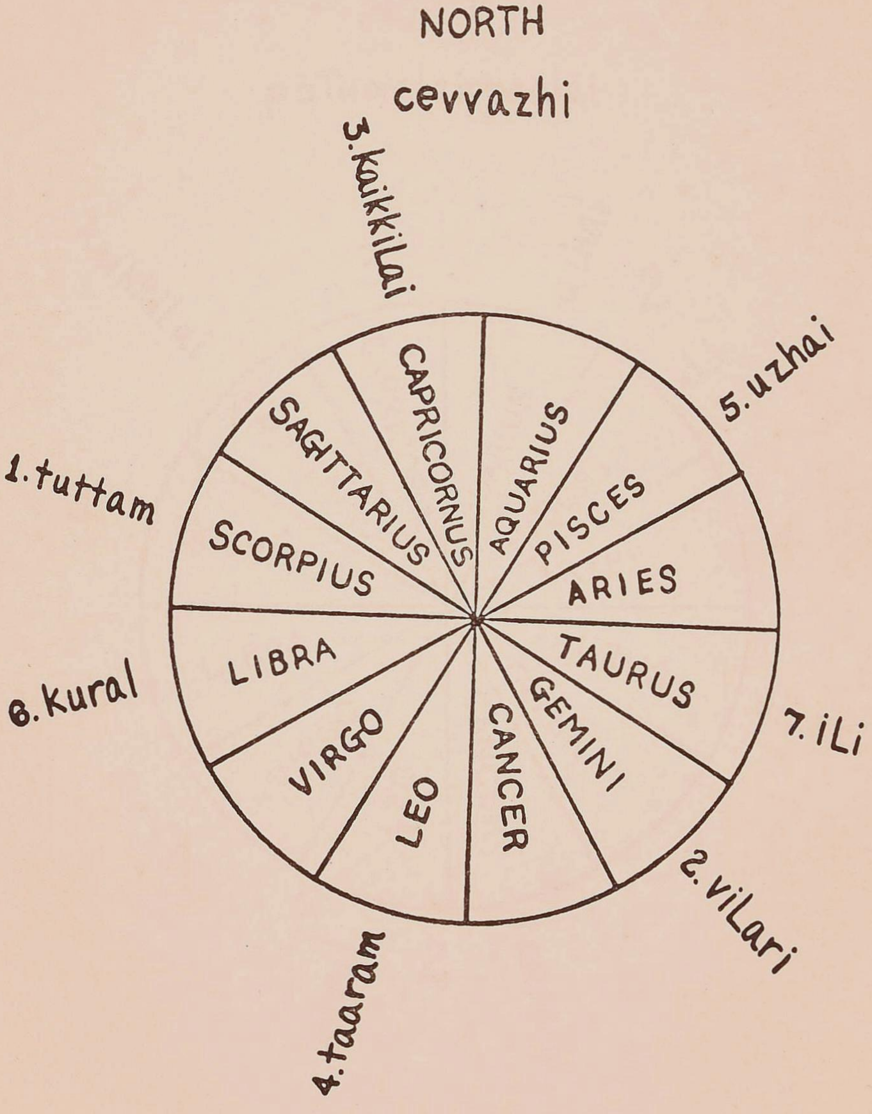

NORTH
cevvazhi
3. kaikkiLai
5. uzhai
1. tuttam
6. kural
7. iLi
2. viLari
4. taaram
CAPRICORNUS
AQUARIUS
PISCES
ARIES
TAURUS
GEMINI
CANCER
LEO
VIRGO
LIBRA
SCORPIUS
SAGITTARIUS

Diagram 6.

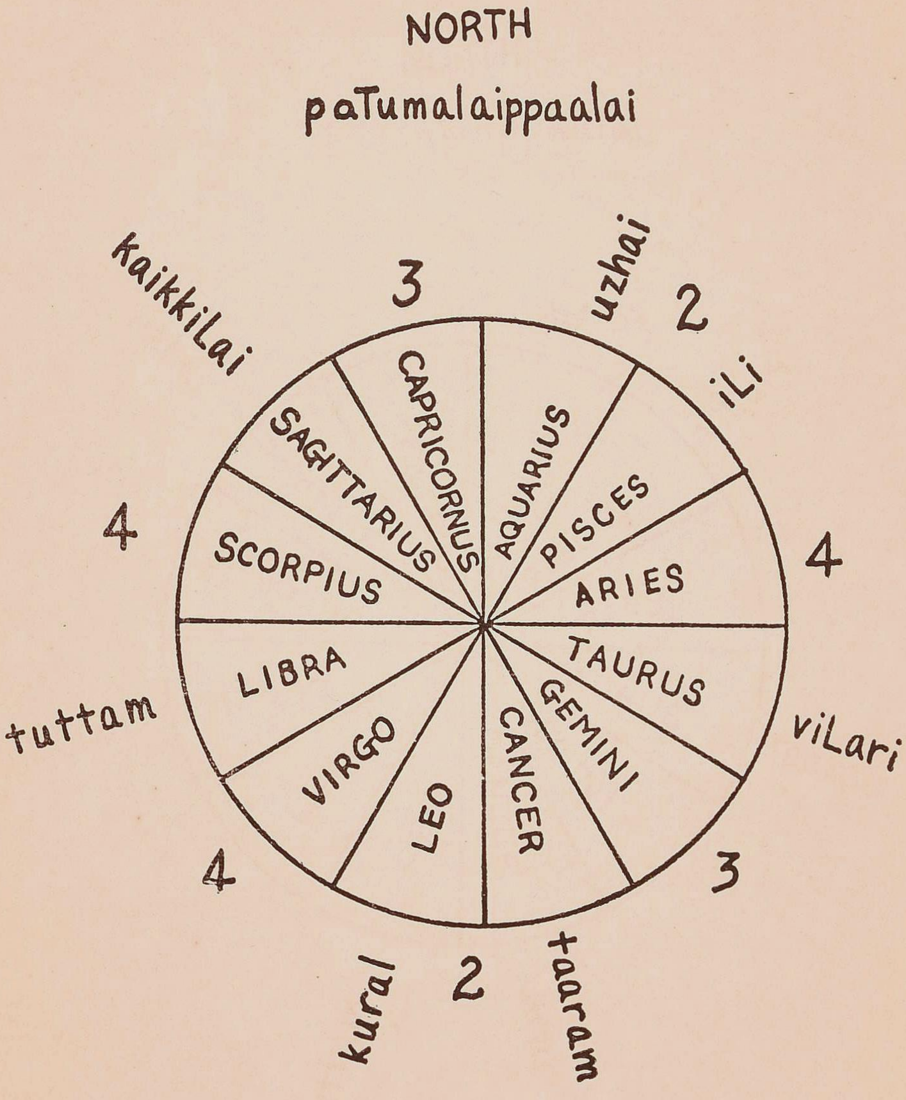

NORTH
paTumalaippaalai
kaikkiLai
3
uzhai
2
iLi
4
4
tuttam
viLari
4
3
kural
2
taaram
CAPRICORNUS
AQUARIUS
SAGITTARIUS
PISCES
SCORPIUS
ARIES
LIBRA
TAURUS
VIRGO
GEMINI
LEO
CANCER

Diagram 7.

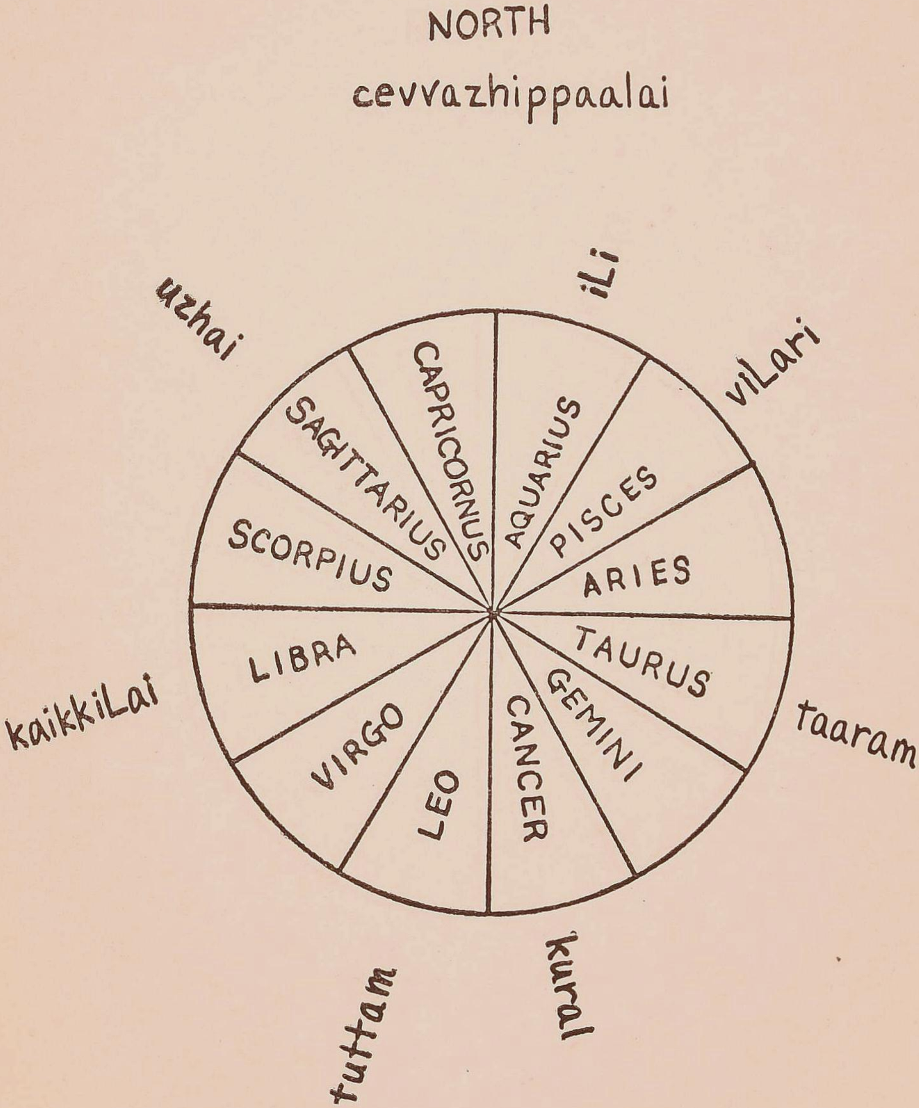

NORTH
cevvazhippaalai
uzhai
iLi
viLari
CAPRICORNUS
AQUARIUS
SAGITTARIUS
PISCES
SCORPIUS
ARIES
LIBRA
TAURUS
GEMINI
VIRGO
CANCER
LEO
kaikkiLai
taaram
tuttam
kural

Diagram 8.

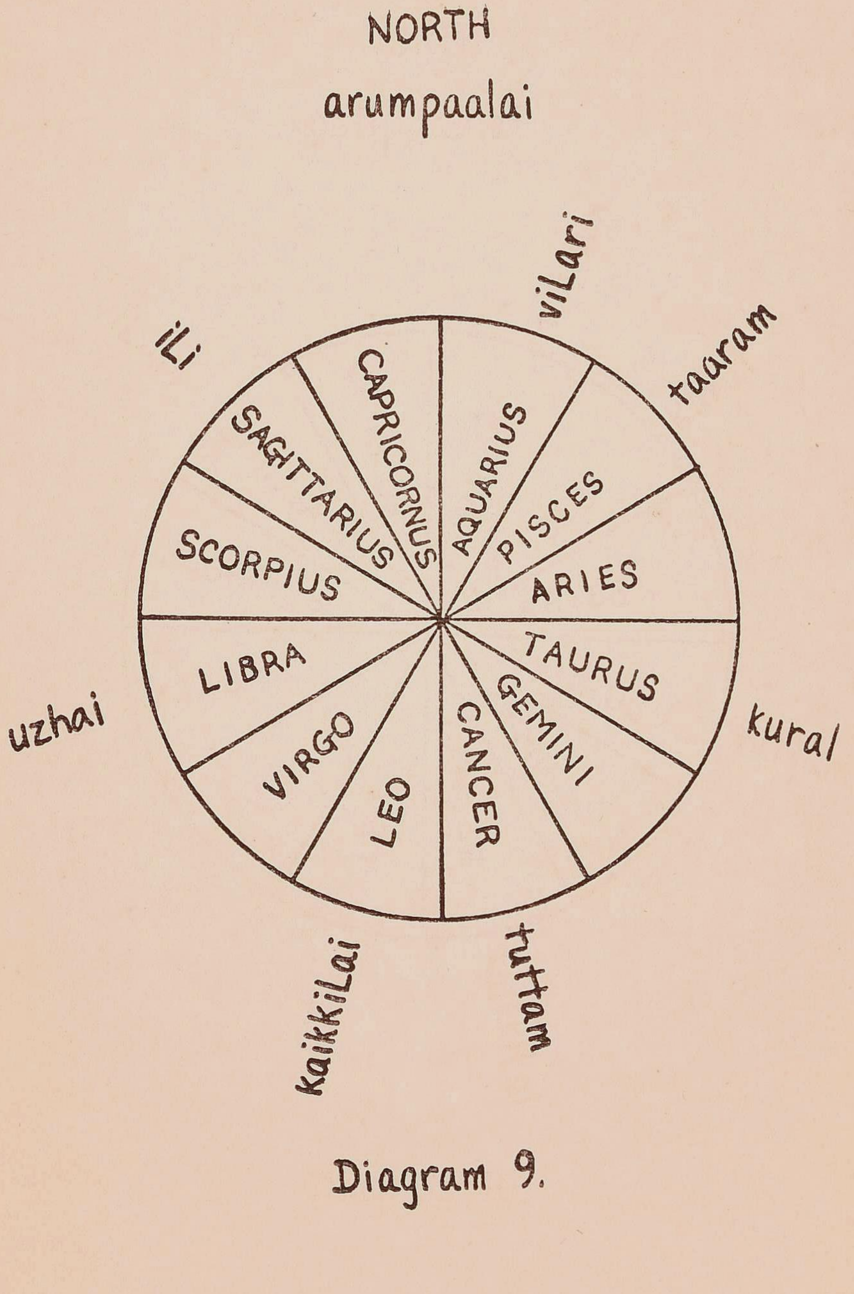

NORTH
arumpaalai
viLari
taaram
iLi
CAPRICORNUS
AQUARIUS
SAGITTARIUS
PISCES
SCORPIUS
ARIES
LIBRA
TAURUS
GEMINI
CANCER
VIRGO
LEO
uzhai
kural
kaikkiLai
tuttam

Diagram 9.

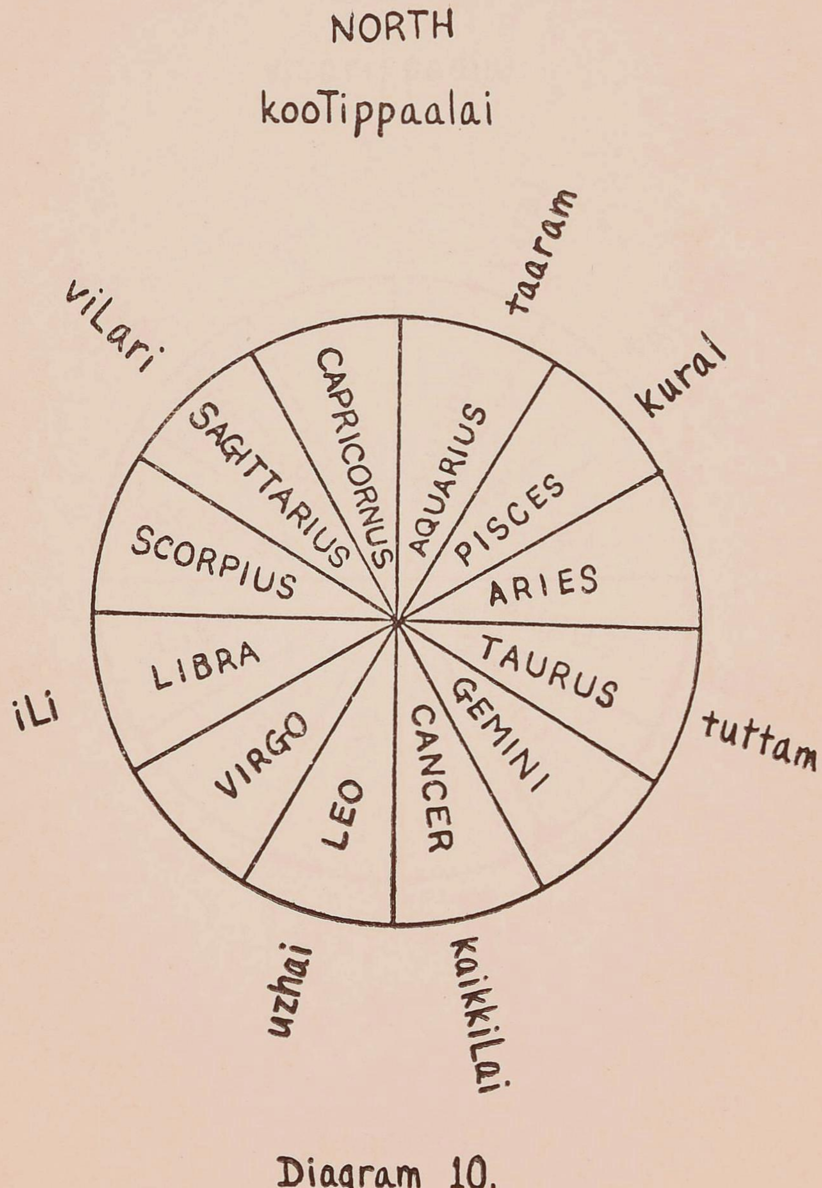

NORTH
kooTippaalai
taaram
viLari
kural
CAPRICORNUS
AQUARIUS
SAGITTARIUS
PISCES
SCORPIUS
ARIES
TAURUS
LIBRA
GEMINI
CANCER
VIRGO
LEO
iLi
tuttam
uzhai
kaikkiLai

Diagram 10.

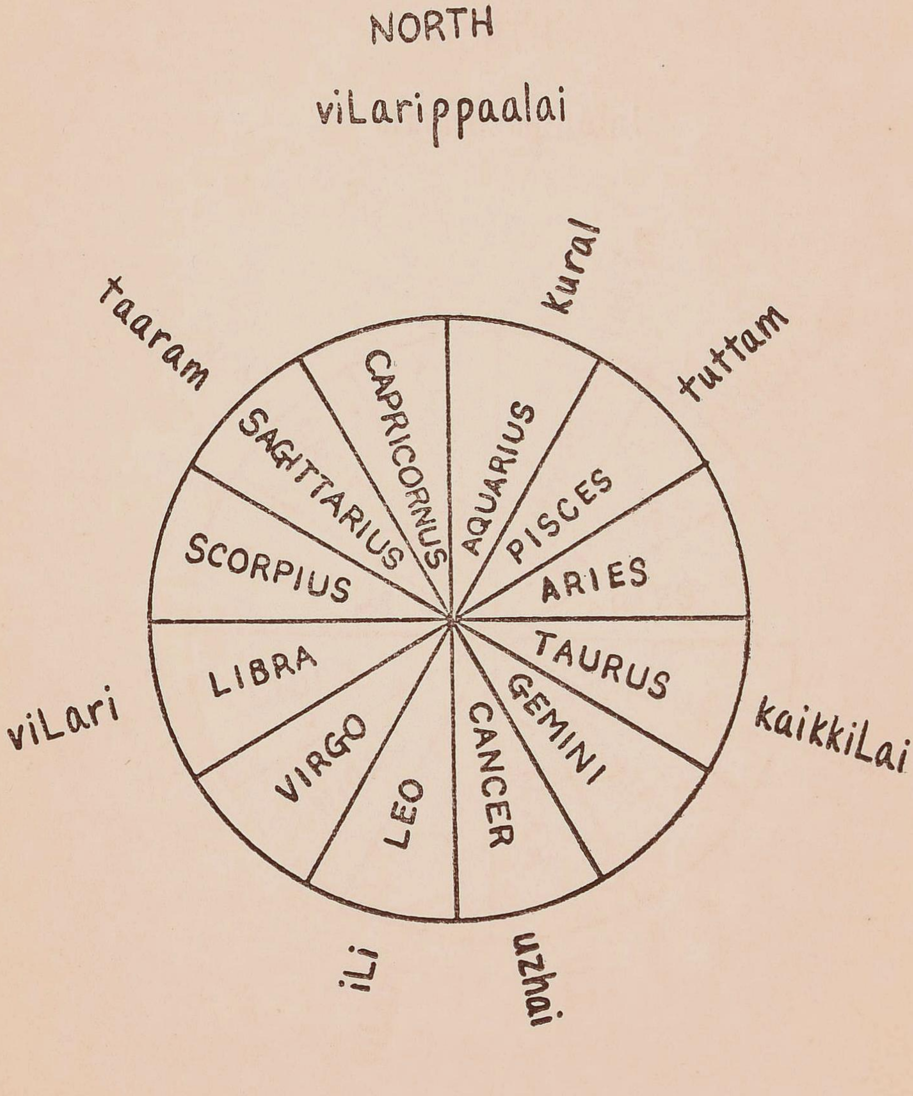

NORTH
viLarippaalai
kural
tuttam
kaikkiLai
uzhai
iLi
viLari
taaram
AQUARIUS
PISCES
ARIES
TAURUS
GEMINI
CANCER
LEO
VIRGO
LIBRA
SCORPIUS
SAGITTARIUS
CAPRICORNUS

Diagram 11.

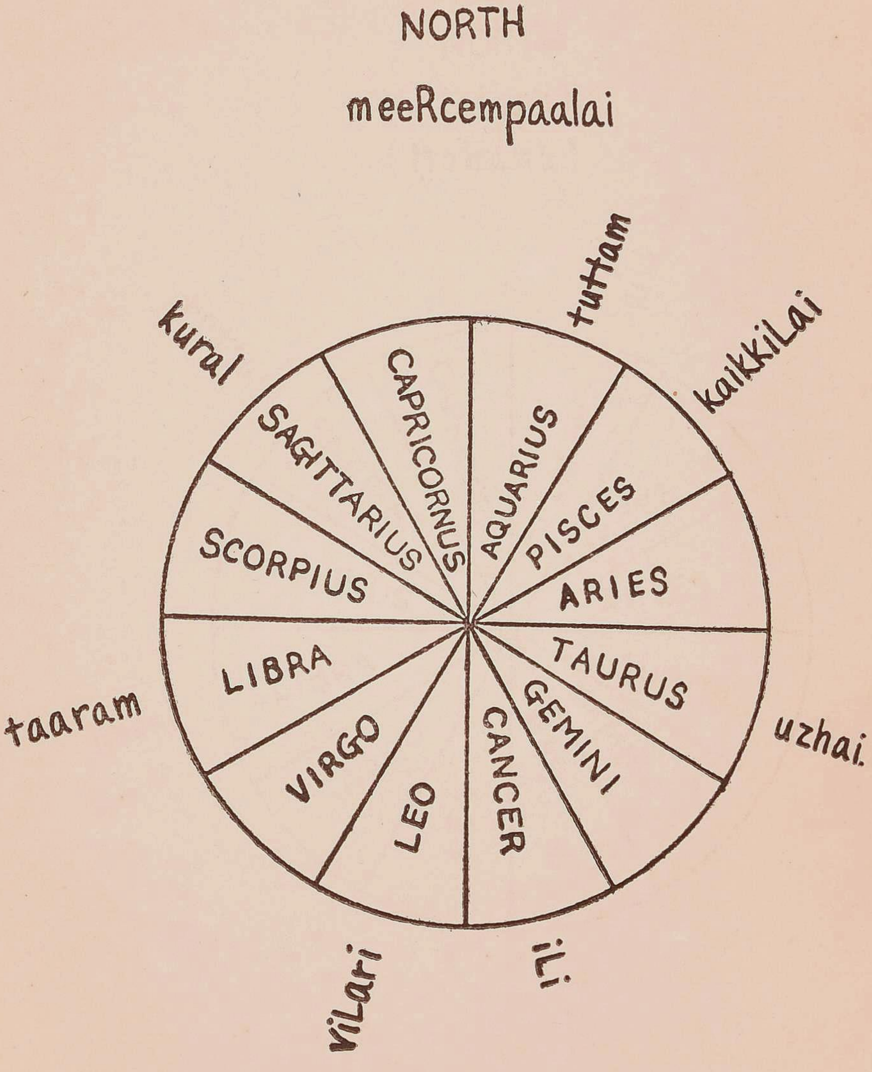
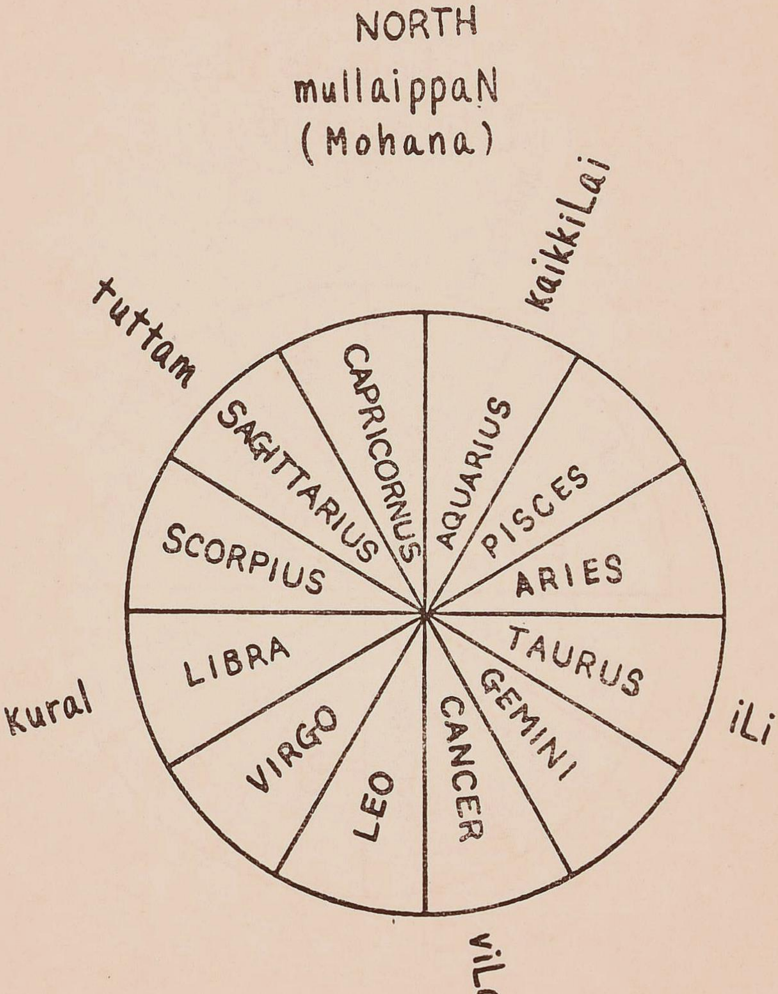

NORTH
meeRcempaalai
tuttam
kaikkiLai
kural
CAPRICORNUS
AQUARIUS
SAGITTARIUS
PISCES
SCORPIUS
ARIES
TAURUS
LIBRA
GEMINI
taaram
uzhai.
VIRGO
CANCER
LEO
ViLari
iLi

Diagram 12.



NORTH
mullaippaN
(Mohana)
kaikkiLai
tuttam
CAPRICORNUS
AQUARIUS
SAGITTARIUS
PISCES
SCORPIUS
ARIES
TAURUS
LIBRA
GEMINI
CANCER
VIRGO
LEO
kural
iLi
viLari

Diagram 13.

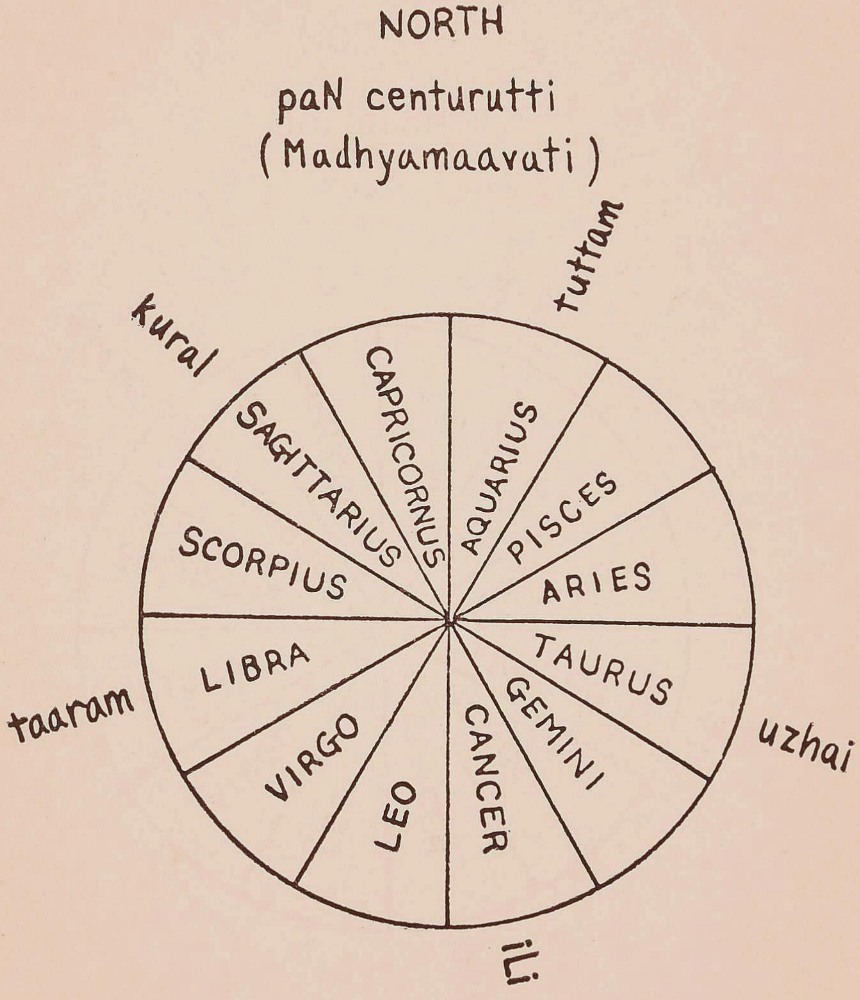

NORTH
paN centurutti
(Madhyamaavati)
tuttam
kural
CAPRICORNUS
AQUARIUS
SAGITTARIUS
PISCES
SCORPIUS
ARIES
LIBRA
TAURUS
GEMINI
VIRGO
CANCER
LEO
taaram
uzhai
iLi

Diagram 14.

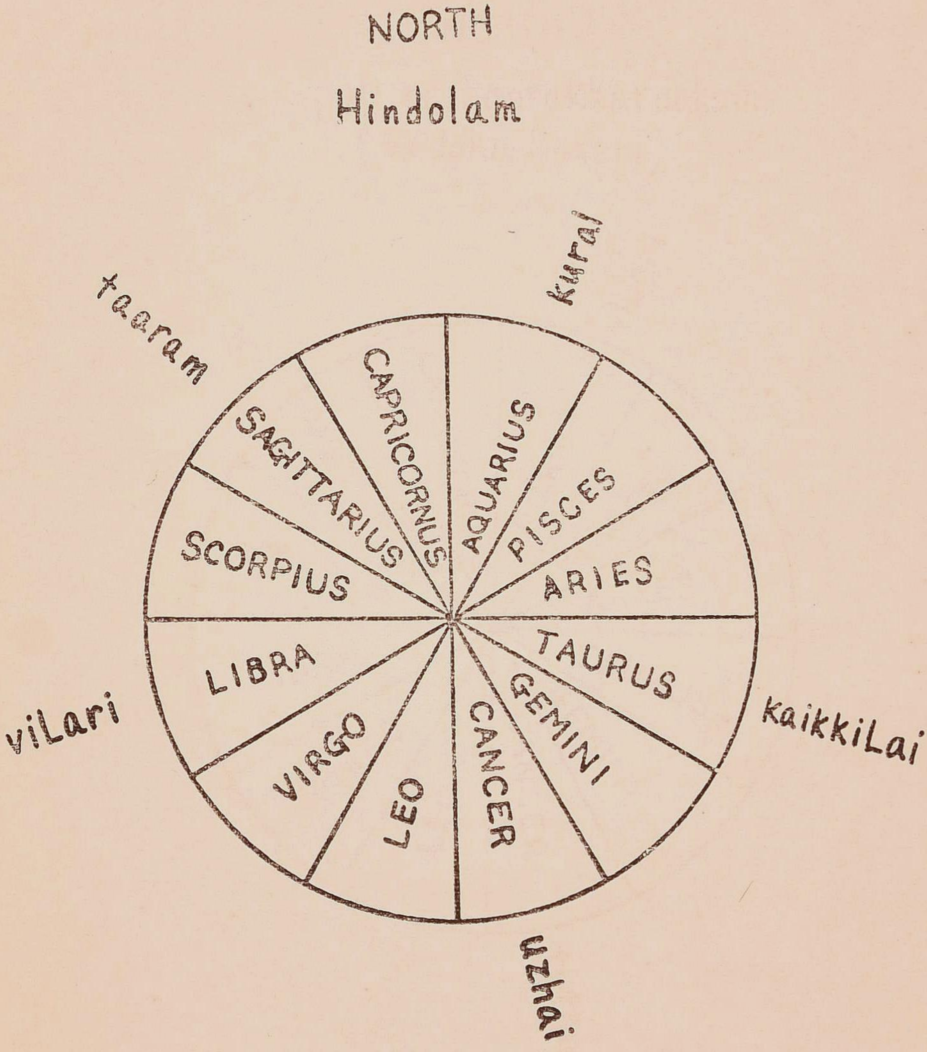

NORTH
Hindolam
taaram
kurai
CAPRICORNUS
AQUARIUS
SAGITTARIUS
PISCES
SCORPIUS
ARIES
TAURUS
LIBRA
GEMINI
CANCER
VIRGO
LEO
viLari
kaikkiLai
uzhai

Diagram 15.

NORTH

paN pazhantakkaraakam
(Suddha Saveri)

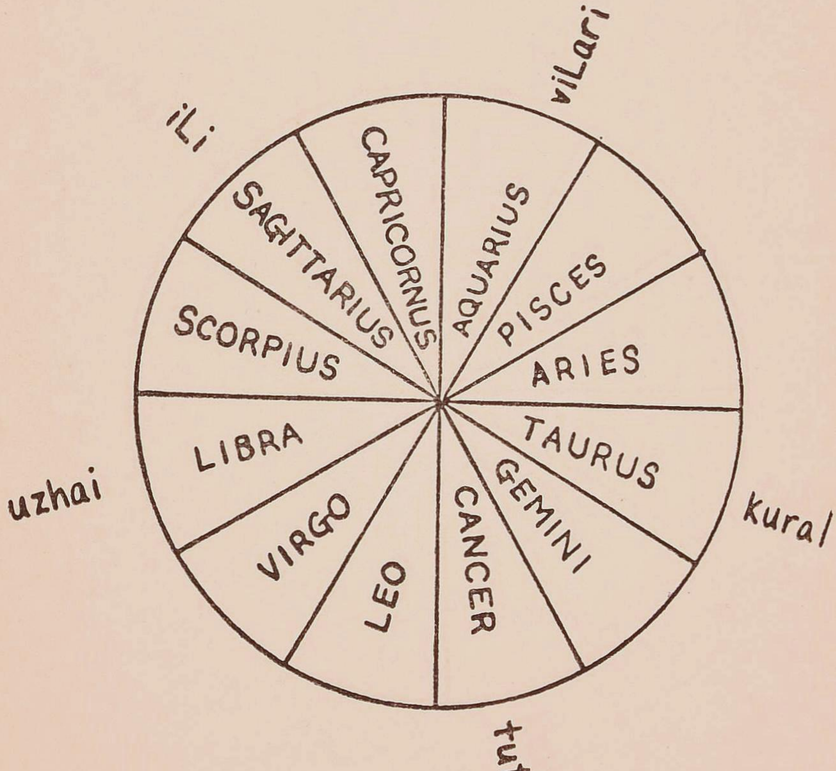


Diagram 16.

NORTH

Suddha Dhanyasi

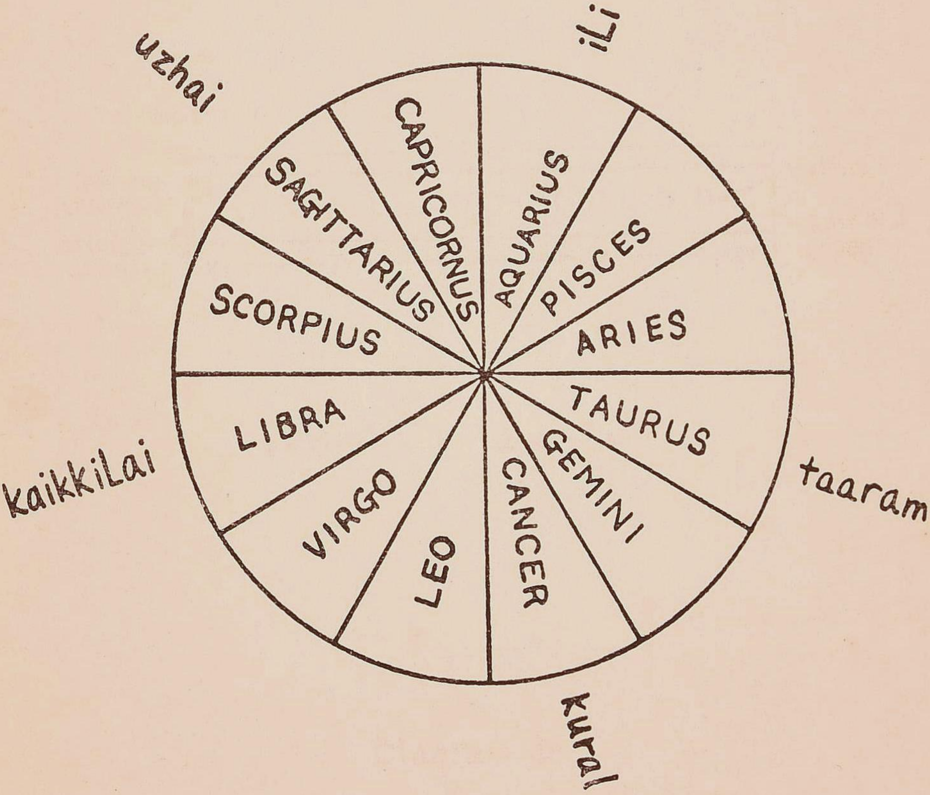
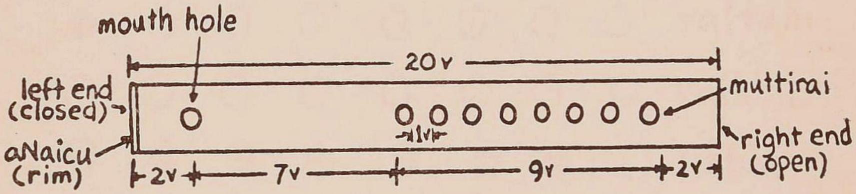


Diagram 17.

Kuzhal : Measurements



v = viral   1 v = 3/4"

Diagram 18.

Kuzhal: The Seven Notes

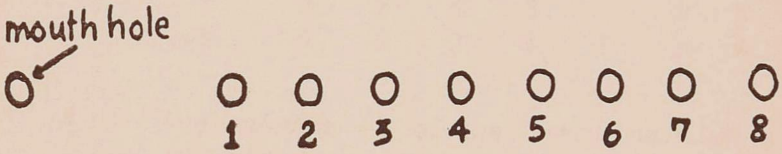
FINGER - HOLES

●	●	○	○	○	○	○	○	kural
●	○	○	○	○	○	○	○	tuttam
○	○	○	○	○	○	○	○	kaikkiLai
○	●	●	●	●	●	●	○	uzhai
●	●	●	●	●	○	○	○	iLi
●	●	●	●	○	○	○	○	viLari
●	●	●	○	○	○	○	○	taaram

● = CLOSED

Diagram 19.

Kuzhal : Fingering



1. left hand - index finger
2. " - middle "
3. " - ring "
4. right hand - index "
5. " - middle "
6. " - ring "
7. " - little "
8. always open

Diagram 20.

Table 1 : The maattirai-s of the 7 paalai-s.

	kur	thu	kai	uzh	ili	vil	tha
cempaalai	4	4	3	2	4	3	2
paTumalaippaalai	2	4	4	3	2	4	3
cevvazhippaalai	3	2	4	4	3	2	4
arumpaalai	4	3	2	4	4	3	2
kooTippaalai	2	4	3	2	4	4	3
viLarippaalai	3	2	4	3	2	4	4
meeRcempaalai	4	3	2	4	3	2	4

Table 2 : The *maattirai-i-s* of the seven *paalai-s* in relation to their kural.

	kur	tut	kai	uzh	iLi	viL	taa	kur
cempaalai	0	4	7	9	13	16	18	22
paTumalaippaalai	0	4	8	11	13	17	20	22
cevvazhippaalai	0	2	6	10	13	15	19	22
arumpaalai	0	3	5	9	13	16	18	22
kooTippaalai	0	4	7	9	13	17	20	22
viLarippaalai	0	2	6	9	11	15	19	22
meeRcempaalai	0	3	5	9	12	14	18	22

Table 3: The relative positions of the notes of the seven paalai s.

maattirai	cempaalai	paTumalaippaalai	cevvazhippaalai	arumpaalai	kooTippaalai	viLarippaalai	meeRcempaalai
22	kur	kur	kur	kur	kur	kur	kur
21	-	-	-	-	-	-	-
20	-	taa	-	-	taa	-	-
19	-	-	taa	-	-	taa	-
18	taa	-	-	taa	-	-	taa
17	-	viL	-	-	viL	-	-
16	viL	-	-	viL	-	-	-
15	-	-	viL	-	-	viL	-
14	-	-	-	-	-	-	viL
13	iLi	iLi	iLi	iLi	iLi	-	-
12	-	-	-	-	-	-	iLi
11	-	uzh	-	-	-	iLi	-
10	-	-	uzh	-	-	-	-
9	uzh	-	-	uzh	uzh	uzh	uzh
8	-	kai	-	-	-	-	-
7	kai	-	-	-	kai	-	-
6	-	-	kai	-	-	kai	-
5	-	-	-	kai	-	-	kai
4	tut	tut	-	-	tut	-	-
3	-	-	-	tut	-	-	tut
2	-	-	tut	-	-	tut	-
1	-	-	-	-	-	-	-
0	kur	kur	kur	kur	kur	kur	kur

Table 4: The seven paalai-s and the equivalent raaga-s and the western modes.

	paalai	raaga	western mode
1.	cempaalai	harikaambhooji	Mixo Lydian
2.	paTumalippaalai	kalyaaNi	Lydian
3.	cevvazhippaalai	toodi	Phrygian
4.	arumpaalai	kharaharapriya	Dorian
5.	kooTippaalai	s'ankaraabharaNam	Ionian
6.	viLarippaalai	...	Locrian
7.	meeRcempaalai	naTa bhairavi	Aeolian

Table 5 : kural tiripu from paalaiyaazh (cempaalai) valamuRai (clockwise)

kural of cempaalai	coincides with	kural of paalaiyaazh
tuttam of paTumalaippaalai	,,	,,
kaikkiLai of cevvazhippaalai	,,	,,
uzhai of arumpaalai	,,	,,
iLi of kooTippaalai	,,	,,
viLari of viLarippaalai	,,	,,
taaram of meeRcempaalai	,,	,,

Table 6 : kural tiripu from paalaiyaazh (cempaalai) iTamuRai (anti-clockwise)

kural	of	paalaiyaazh	becomes	kural of cempaalai
tuttam	of	,,	,,	meeRcempaalai
kaikkiLai	of	,,	,,	viLarippaalai
uzhai	of	,,	,,	kooTippaalai
iLi	of	,,	,,	arumpaalai
viLari	of	,,	,,	cevvazhippaalai
taaram	of	,,	,,	paTumalaippaalai

Table 7 : Kural tiripu from arumpaalai iTamuRai (anticlockwise)

kural	of	arumpaalai	becomes of arumpaalai
tuttam	of	,,	cevvazhippaalai
kaikkiLai	of	,,	paTumalaippaalai
uzhai	of	,,	cempaalai
iLi	of	,,	meeRcempaalai
viLari	of	,,	viLarippaalai
taaram	of	,,	kooTippaalai

Table 8 : The s'ruti-s of the seven notes in the two viiNaa-s of Bharata.

	viiNaa I	viiNaa II	Step 1	Step 2	Step 3	step 4
sa	0	0	-1	-2	-3	-4
ri	3	3	2	1	0	-1
ga	5	5	4	3	2	1
ma	9	9	8	7	6	5
pa	13	12	12	11	10	9
dha	16	16	15	14	13	12
ni	18	18	17	16	15	14
sa'	22	22	21	20	19	18

TRANSLATION OF THE PASSAGES QUOTED

TEXT 1 17 (13)

The Dance of the cowherd-women

Telling her daughter that the seven young girls reared the bulls in the manger with intent to marry only the youth who subdued the bulls, the cowherdess with curling hair decked with blossomed flowers arranged the seven girls in the traditional way of musical notes and gave them new names: *kural, tuttam, kaikkiLai, uzhai, iLi, viLari,* and *taaram,* starting at kural in the west and proceeding leftwise.

TEXT 2 17 (14)

She said that the kural note stood for *Maayavan* and that the iLi note stood for the mighty *Palateevan.* The cowherdess said that the tuttam note stood for *Pinnai* and that the others remained as before : kaikkiLai, uzhai, viLari, and taaram.

TEXT 3 17 (15)

Pinnai and taaram stand adjacent to Maayavan; uzhai and viLari stand adjacent to the white-skinned Palateevan. KaikkiLai is to the left of Pinnai; the good viLari is to the right of taaram.

TEXT 4 17 (16)

Among them, Pinnai places the *tulasi* garland on Maayavan and initiates the *kuravai* dance in conformity to tradition, herself participating in the dance.

TEXT 5 17 (17)

Participation in the dance

Taking their right (equi-distant) positions in the circle and clasping one another's hands in crablike fashion, they studied the rhytm (*taaLam* or time measure) for the dance, in the position itself.

The girl representing the kural note addressed tuttam, the one related to her and said, "Let us sing the sweet *mullaippaN* in praise of Maayavan who tore asunder the *kurunta* tree in the wide field of the forest region."

TEXT 6 17 (18)

As soon as she (kural) said so, the singer (viLari) sings the kural note low, iLi in the middle register, tuttam high in the same sequence, viLari low, and thus she sings for her friend, Pinnai.

TEXT 7 17 (13) : 8 aru

vaTTappaalai is as follows :

"Having drawn a circle and two diameters and two more within the intermediate directions between the cardinal points as prescribed, taking the sign Taurus in the East, and counting the twelve angular parts, define the space."

TEXT 8 ibid

"iLi stands at Taurus, viLari at Cancer, taaram at Leo, kural at Libra, tuttam at Sagittarius, kaikkilai at Aquarius and uzhai at Pisces."

TEXT 9 ibid

"kural stands at Libra, tuttam at Sagittarius, kaikkiLai at Aquarius, uzhai at Pisces, iLi at Taurus, viLari at Cancer, and taaram at Leo. These are the positions for the ancient seven musical notes."

TEXT 10 ibid

Taking the seven girls as the seven musical notes and making them stand in the positions of the notes.

TEXT 10 A patikam : 77 ATi

"*kuravai* is a dance in which seven girls stand in a circle equidistantly and clasping one another's hand perform dancing according to that position."

TEXT 11 17 (13) ATi

paalai (musical scale) is of four types. "The four types of paalai (are : linear, square, triangular and circular."

TEXT 12 ibid

"vaTTappaalai is defined as a circle in which the seven musical notes are arranged."

TEXT 13, 14 ibid

"Draw a circle of the dimensin of a hand-span; within each of the angles formed by the cardinal points, draw two more lines. In this way, the division into twelve angles may be made."

Thus states the epigram.

TEXT 15 ibid

"The twelve signs are to be set up in the zodiac from right to left. The last is Pisces."

TEXT 16 ibid

In the twelve angles described, the twelve zodiacal signs are to be set up. Of these, only seven figure with musical notes.

TEXT 17 ibid

"The seven notes, kural to taaram, lie respectively in Taurus, Cancer, Leo, Libra Sagittarius, Aquarius, and Pisces resembling cempaalai."

TEXT 18 ibid

"Arrange kural in Libra, tuttam in Sagittarius, kaikkiLai in Aquarius, uzhai in Pisces, iLi in Taurus and taaram in Leo."

TEXT 19 ibid

"According to those with discernment, the *maattirai-s* of these notes are as follows: kural and tuttam four each:

kaikkiLai three: uzhai two: iLi four: viLari three: and taaram two."

TEXT 20 ibid

In taaram uzhai is born:
in uzhai kural is born:
in kural iLi is born:
in iLi tuttam is born:
in tuttam viLari is born:
in viLari kaikkiLai is born:
Of these, the first to appear is taaram.

TEXT 21 ibid

The four paN-s are born in vaTTappaalai:
"If uzhai is born in taaram, it is *paalaiyaazh.*
If kural is born in uzhai, it is *kuRinciyaazh.*
If iLi is born in kural, it is *marutayaazh.*
If tuttam is born in iLi, it is *neytaliyaazh.*"

TEXT 22 ibid

Of these four paN-s, seven paalai-s are born out of paalai-yaazh.

TEXT 23 ibid

"Taking away half the maattirai-s of kural and iLi, and without discrimination giving one each to taaram, uzhai, viLari and kaikkiLai, tuttam will be kural."

TEXT 24 ibid

When the paalai is born in these notes, kural, tuttam and iLi have four maattirai-s each; kaikkiLai and viLari three maattirai-s each and taaram two maattirai-s each. *Cempaalai* is that in which kural coincides with kural. In this, taking away half of kural and half of iLi and adding one each to kaikkiLai, uzhai, viLari and taaram, tuttam becomes kural and it becomes *paTumalaippaalai.*

Varying in the same way, the seven big paalai-s are born; they are produced starting from the shifted kural.

TEXT 25 ibid

kural	being	kural	it	is	cempaalai;
tuttam	,,	,,	,,	,,	paTumalaippaalai;
kaikkiLai	,,	,,	,,	,,	cevvazhippaalai;
uzhai	,,	,,	,,	,,	arumpaalai;
iLi	,,	,,	,,	,,	kooTippaalai;
viLari	,,	,,	,,	,,	viLarippaalai;
taaram	,,	,,	,,	,,	meeRcempaalai.

Thus the seven paalai-s may be obtained in *valamuRai* (right or clockwise method).

TEXT 26 10 : kaTTurai : 14 ATi

cakooTa yaazh with fourteen notes and the paalai in the left or anticlockwise position.

TEXT 27 8 : 35 ATi

She took kural first and played with iLi as kural. The poet speaks of the shifting of kural in the vaTTappaalai in *iTamuRai* (left or anti-clockwise way).

TEXT 28 3 : 70-79

In order to establish the seven paalai-s within the well-arranged fourteen notes, kaikkiLai took half of high taaram and half of low kural; the beautiful and unflinching taaram gave to viLari the remaining half left by kaikkiLai and became kaikkiLai herself; then, on seeing her related one, viLari disappear, kaikkiLai merged with her; like kaikkiLai, the other notes too merged with the corresponding notes.

TEXT 29 3 : 80-81

With uzhai above and kaikkiLai below. it became cempaalai in the new tradition.

TEXT 30 3 : 72-78 ATi

Taking away one of the two maattirai-s belonging to taaram which is in the last place in the vaTTappaalai, and

taking away two of the four mattirai-s belonging to kural which stands at the first place in the vaTTappaalai and making kaikkiLai stand in the taaram string, taaram became kaikkiLai. Adding the remaining one maattirai to the previous viLari, that viLari became the tuttam string.

Thus shifting twelve times, twelve paalai-s will be born. The ninety one *uru-s* of the twelve paalai-s and the twelve cause the 103 paN-s.

TEXT 31 3 : 84-88 aru

In the reverse order,

if kaikkiLai becomes kural, it is *paTumalaippaalai;*
if tuttam ,, ,, ,, ,, *cevvazhippaalai;*
if kural ,, ,, ,, ,, *arumpaalai;*
thus undergoing a change in their nature,
if taaram becomes kural, it is *kooTippaalai;*
if viLari ,, ,, ,, ,, *viLarippaalai;*
if iLi ,, ,, ,, ,, *meeRcempaalai.*

TEXT 32 3 : 26 ATi

The seven musical notes are: shadja, rishabha, gaandhaara, madhyama, pancama, dhaivata and nishaada.

TEXT 33 ibid

The seven letters: sa ri ga ma pa dha ni.

TEXT 34 ibid

The musical notes produced in the holes of the *kuzhal* are: sa ri ga ma pa dha ni.

TEXT 35 14 : 153 ATi

The seven musical notes, kural etc. which appear by the seven letters: sa ri ga ma pa dha ni.

TEXT 36 5 : 35-37 ATi

The seven musical notes the first of which is kural and the letters are: sa ri ga ma pa dha ni.

TEXT 37 3 : 59-60

Being one with discernment to listen to musical notes related as kural and iLi.

TEXT 38 8 : 33

iNai, kiLai, pakai, naTpu: these four.

TEXT 39 ibid aru

iNai means two notes.

"The iNai notes are those below and above of such interval as to appear to be in unison."

TEXT 40 ibid

kiLai is the fifth note.

"The *kiLai* notes are five: kural, iLi, tuttam, viLari and kaikkiLai."

TEXT 41 ibid

The *naTpu* (friend) is the fourth note.

TEXT 42 ibid

The *pakai* (enemy) notes: sixth and third.

"The *pakai* notes are those which stand as the sixth and the third to the standing note."

kuuTam and *pakai* are synonyms.

TEXT 43 17 : (17) ATi

He (the poet) speaks of low, median and high registers.

TEXT 44 3 : 80-81 aru

From uzhai to kaikkiLai: four in the low register, seven in the median and three in the high register.

TEXT 45 3 : 26 aru

The state of the *paalai* and that of the *paN*.

TEXT 46 3 : 46 aru

paN refers to that which is made colourful with seven notes, six notes, five notes or four notes.

TEXT 47 3 : 149 aru

paalaippan which is auspicious on account of its notes.

TEXT 48 3 : 26 ATi

It is called *paN* because it is made by the eight actions: *eTuttal* etc.

The eight actions are (lit. meaning) taking up: laying down: to become slender: to shake: crookedness: sound: to roll: and to strike.

TEXT 49 3 : 41-42 ATi

Having understood the features of the paN in which the musician had performed *aaLatti* (elaboration) under the eleven classifications: lit. first, fullness, deficiency, to own, high register, low register, middle register, range, quality.

TEXT 50 3 : 65 ATi

Seeing that the notes belonging to the paN are not deficient:

seeing that a note not belonging to the paN does not figure in it.

TEXT 51 4 : 15; 17 (21)

The *mullaippaN* fostered on the *kuzhal;* Shall we not listen to the sweet *mullaikkuzhal?*

TEXT 52 4 : 75 ATi

nootiRam - the pan *puRaniirmai*.

TEXT 53 ibid

"*Akattiyar* said that the five *tiRam-s takkaraakam, nooti-Ram, kaantaarapancamam, coomaraakam,* and *kaantaaram* are derived from *paalaippaN.*"

TEXT 54 6 : 35 ATi

paN *kaucikam*.

TEXT 55 7 : (47)

Playing the *cevvazhippaalai* in which kaikkiLai coincides with kural.

TEXT 56 7 : (48) aru

viLari is a paN sung by those who are sad.

TEXT 57 8 : 24 aru

She sang the paN *meeRcempaalai* and played the same on the *yaazh*.

TEXT 58 ibid

She sang first and then played the *cempaalaippaN* on the *yaazh*.

TEXT 59 8 : 35 ATi

The 103 paN-s are born from the seven big *paalai-s*.

Of those, the paNs born from cempaalai are: *paalaiyaazh, naakaraakam, aakari, tooTi, kauTi, kaantaaram, centurutti, utayakiri.*

TEXT 60 ibid

"The four major paN-s, their four classifications, and the derived *tiRam*-s are called paN."

TEXT 61 11 : 88

The bee hums the *cevvazhippaN*.

TEXT 62 13 : 148

The paN of the dawn sung by the musicians.

TEXT 63 13 : 106 ATi

paN, paNNiyal, tiRam and *tiRattiRam* are also known by their Sanskrit names *sampuurNa, shaaḍava, auḍava, caturtha.*

TEXT 64 13 : 112 ATi

The paN *aacaan* having six notes.

It has four classifications : its *akam* is *kaantaaram; puRam* is *cikaNTr; aruku* is *tacaakkari; peruku* is *cutta kaantaaram.*

TEXT 65 ibid

The paN-s are 103 in number. They are of four kinds : seven-tone, six-tone, five-tone and four-tone paN-s

TEXT 66 14 : 149

Having known the *maattirai* and not deviating from tradition.

TEXT 67 14 : 166 ATi

The four paN-s are; *paalai, kuRinci, marutam* and *cevvazi.*

TEXT 68 26 : 25

The twelve *iraaci-s* or zodiacal signs.

TEXT 69 27 : 224

The *kuRincippaN* sung by the *kuRava* women.

TEXT 70 patikam-ATi

As he (the poet) spoke of the tiRam of *aacaan*, he referred to *kaantaarapancamam.*

TEXT 71 3 : 26-36 ATi

When *aaLatti* (improvisation in paN) is performed, it is sung with the syllables '*tennaa*' and '*tenaa*' or combining them, '*tennaa tenaa.*'

It is of three kinds:

kaaTTaaLatti is done with *accu* (*taaLam*):

niRavaalatti with *paaraNai* (dance):

paNNaaLatti simply the paN.

TEXT 72 ibid

aaLatti is done with short and long vowels.

The five short vowels are: a, i, u, e, o.

The five long vowels are: aa, ii, uu, ee, oo.

Of the eighteen consonants, letters other than *ma, na* and *ta* are not used in aaLatti.

TEXT 73 Preface to the commentary ATi

The large instrument is *peeriyaazh*. Its *kooTu* measures twelve hand-spans: the bend of the *kooTu* is one hand-span: the *pattar* measures twelve hand-spans: it has *aaNi* (pegs), *tivavu* (leather-strap to fasten the strings) and *unti* (?) of corresponding dimensions. It has a thousand strings.

TEXT 74 ibid

"The *aati* (first) *yaazh* has thousand strings."

TEXT 75 *patikam*-ATi

As he said '*kuTamutal,*' i.e., from the west, he (the poet) has referred to *mullaiyaazh*.

TEXT 76 3 : 26

Shall I say that you are the music not born of the *yaazh*?

TEXT 77 3 : 26

Yaazh, kuzhal, taaLam and voice.

TEXT 78, 79 3 : 63 aru, ATi

paTTaTai is the name of the iLi note. Why? Because it is the basis for all paN-s. *vaNNam* is color. *paTTaTai* which has color, Placing this on the *yaazh*: fixing the paN-s on the *yaazh* by *iLikkramam* the sequence of fifths.

TEXT 80 3 : 91

On the yaazh, the notes of the *paalai* get lower in pitch from right to left.

TEXT 81 3 : 139-142

The *yaazh* followed the *kuzhal*: the *taNNumai* followed the yaazh: the *muzavu* followed the *taNNumai*: and joining with the *muzhavu*, the *aamantirikai* sounded.

TEXT 82 3 : 26 ATi

yaazh is of four kinds : they are *peeriyaazh, makarayazh, cakooTayaazh* and *cenkooTTiyaazh.* These are the most common ones; there are other less common ones also.

TEXT 83 ibid

peeriyaazh	has	21	strings
makarayaazh	,,	19	,,
cakooTayaazh	,,	14	,,
cenkooTTiyaazh	,,	7	,,

TEXT 84 5 : 35-37

Large dwelling places of traditional musicians who can play the paNs and the tiRams on the *kuzhal* and *yaazh* faultlessly.

TEXT 85 5 : 222 aru

Like the *yaazh* strings which speak the paN.

TEXT 86 5 : 52 ATi

Those who have the stringed instruments, *yaazh*, etc.

TEXT 87 6 : 172

The good yaazh in which the strings are correctly tuned.

TEXT 88, 89 7 : (1) 3-8; 12-20

She (*Maatavi*) bowed to the *yaazh* which was free from defects in its *patter* (resonator), *kooTu* (stem?), pegs and strings and produced music on it in the eight ways prescribed in treatises and the eight kinds of plucking techniques. Listening carefully, she gave the *yaazh* to *Koovalan* saying, "I am not commanding you; but may I know the *taaLam* (time-measure) of the piece you are going to play?" And he began to sing and play on the *Kaaveeri* (river) and the sea-shore to please *Maatavi.*

TEXT 90 7 : (1) 4 aru

The defects (in the yaazh) could be due to sunlight, wind, water and shade.

TEXT 91 7 : (1) 5-8

paNNal - Plucking kural with the right hand thumb and plucking iLi with the right little finger and listening to them carefull and tuning their octaves is traditionally called *paaNNal.*

TEXT 92 ibid

aaraaytal

Listening to kural, etc. and the octaves, listening to taaram and uzhai; kural and iLi; tuttam and viLari; and viLari and kaikkiLai as prescribed for them.

TEXT 93 7 : (1) 12-16

vaartal - using the index finger

vaTittal - joining the index finger and the thumb and plucking the string by up and down strockes;

untal - ?

uRazhatal - Plucking every third string; lit, plucking (the strings) leaving one in between; and plucking every fourth string; lit, leaving two in between;

uruTTal - plucking with the left hand index finger;
" " " right " " "
" " the two thumbs together.

uruTTal - lit, rolling.

TEXT 94 7 : (24)

'*kalam*' means *yaazh*.

TEXT 95 8 : 25 aru

The good yaazh having nine *tivavu-s* (leather straps for fastening the strings)

TEXT 96 8 : 27-28

Bending in the thumb of the right hand and touching the *kooTu* with the four fingers; gripping the *maaTakam* with the four fingers of the left hand.

TEXT 97 8 : 30-32

Having learnt how to remove the dissonance, fixing the series of fourteen notes in unfaltering tradition from uzhai to kaikkiLai.

TEXT 98 ibid aru

"kural, tuttam, and iLi have four *maattirai-s* each; viLari and kaikkiLai have three *maattirai-s* each; taaram and uzhai have two *maattirai-s* each;

Thus say those who know."

TEXT 99 8 : 44 aru

The same paN that is sung with the voice is played on the *yaazh*.

TEXT 100 ibid

The verse and its melody are like the kite (bird) and its shadow.

TEXT 101 8 : 23-26 ATi

How to play the *yaazh:*

"The beautiful lady should humbly receive with her two hands the divine and sweet-sounding yaazh created by the god on the lotus and placing it on her left lap should play the *teevapaaNi.*"

TEXT 102 8 : 27-23 ATi

pataakai hand is the hand in which the thumb is bent and all the other fingers are straight.

maaTakam - device for tightening (strings). We spoke of it earlier under *aaNi.*

TEXT 103 3 : 29-30 ATi

"*pakai* is the sound which does not fit in with the paN and is not sweet. Thus say the wise.

TEXT 104 ibid

"The *s'ruti* is called *aarppu* when its *maattirai* exceeds what is prescribed for it."

TEXT 105 8 : 31-32 ATi

Of these seven notes, kural etc., the first to appear is taaram,

Fixing the notes in such a way that *kooTippaalai* appears first, in which uzhai is kural and kaikkiLai is taaram; uzhai is the first note born from taaram.

TEXT 106 11 : 87-92

cevvazhiyaazh paN.

TEXT 107 13 : 106-109

In the *cenkooTTiyaazh,* fastening the *tivavu* tightly with the *tantirikaram,* attaching the *oRRuRuppu* with the *paRRu,* tying the strings from uzhai to kaikkiLai.

TEXT 108 18 : 108 ATi

oRRuRuppu is the part (of the *yaazh*) which is attached to the strings and *pattar.*

TEXT 109 13 : 106 ATI

The four kinds of *yaazh* which are the base for the four major paN-s.

TEXT 110 13 : 106 ATi

tantirikaram is the part of the yaazh to which the strings are fastened. It is two hand spans and four *viral* (21") in length and fixed crosswise.

TEXT 111 ibid

tivavu is the leather strap with which the strings are tied tightly.

TEXT 112 13 : 108 ATi

cenkkooTTiyaazh has six parts. They are: *kooTu, tivavu. oRRu...tantirikaaram* and string.

TEXT 113 17 : (26)

naaratan who plays the yaazh plucking the string for the *taaLa* beat.

TEXT 114 28 : 55

The *yaazh* with the bent *kooTu*

TEXT 115 3 : 26 ATi

miTaRu refers to the body-*viiNai*

TEXT 116 6 : 18

naaratan's viiNai

TEXT 117 6 : 22-23

May the *viiNai* remain on the earth.

TEXT 118 3 : 26 aru

kuzhal has finger - holes and a mouth-hole.

TEXT 119 3 : 67-68 aru

The *kuzhal* player who plays in such a way that the letters of the words of the song are not mutilated but heard clearly as letters.

TEXT 120 3 : 92

In the *kuzhal,* the notes of *kooTippaalai* get lower in pitch from right to left.

TEXT 121 3 : 26 ATi

kuzhal, also called *vankiyam,* is made of bamboo, sandalwood, bronze, redwood or *karunkaali.*

Of these, making it in bamboo is the best.

TEXT 122 ibid

Its length is 20 *viral* (15''); circumference is 4½ *viral* (3 and ⅜''). The left end is closed and the tip has a ring made of bronze which is half a ricegrain in width. The right end is left open.

TEXT 123
Measurements for the holes :

Total of the kuzhal is 20 *viral* (15'').

Of this, leaving two *viral* ($\frac{1}{2}$'') at the left end, make the mouth-hole. At a distance of 7 *viral* ($5\frac{1}{4}$'') from the mouth-hole, and leaving two *viral* ($1\frac{1}{2}$'') at the right end, make seven holes within the intervening nine *viral* (6 and $\frac{3}{4}$''). Of the eight holes, leaving the one called *muttirai*, the *kuzhal* is played with seven fingers in the seven holes; the space between the holes is one *viral* ($\frac{3}{4}$'').

TEXT 124 ibid

In the *kuzhal*, the hole closest to the open end is left out as *muttirai*.

The seven fingers are :

On the left hand, the three fingers omitting the thumb and the little finger.

On the right hand, the four fingers omitting the thumb.

TEXT 125 3 : 27

The low sounding *taNNumai*.

TEXT 126, 127 3 : 53-55, ibid aru

aakkal - making up for the deficiency of other instruments.

aTakkal - suppressing the excessive loudness of other instruments.

miittiRampaTaamai - while doing so, maintaining the continuity in sound.

All this is to be done by the *taNNumai* player with an eye on beauty.

TEXT 128 3 : 140 aru

taNNumai is the same as *mattaLam*.

TEXT 129 3 : 27 ATi

These are the percussion instruments : *peerikai* etc.

TEXT 130 ibid

These are of seven kinds ; *akaumuzhavu* etc.

TEXT 131 ibid

mattaLam ; 'mattu' means sound. As it is the base for all instruments making sound, it is called *mattaLam*.

callikai - It is so called because it produces the sound 'cal' *aavanci, kuTukkai* and *iTakkai* are synonyms.

It is called *iTakkai* because it is played with the left hand.

karaTikai is so called because its sound resembles the cry of the bear.

TEXT 132 3 : 141 ATi

muzhaa is the same as *kuTamuzhaa*.

TEXT 133 14 : 151 ATi

"*mattaLam, taNNumai, iTakkai* and *callikai:* these four are the best of percussion instruments."

TEXT 134 3 : 143 aru

aamantirikai is the same as *iTakkai*.

TEXT 135 26 : 194 aru

paaNTil - cymbals made of bronze.

TEXT 136 5 : 87-88

muracu, the sound of which resembles the roar of thunder.

TEXT 135 A 5 : 141-142 aru

Mounting the *muracu* on the head of an elephant and announcing the beginning and end of the festival.

TEXT 137 13 : 140 aru

kaalai muracam which is played at dawn.

TEXT 138 13 : 144 and ibid aru

The *muzhavu* given by the king to the warriors as reward.

TEXT 139 13 : 32 ATi

The sound of the *paRai :*

uR TaTTa TaTTa

TEXT 140 14 : 14 ATi

muzhavu sounded along with the conch and the *kompu* (horn).

TEXT 141 6 : 35 ATi

According to *cikaNTi's icai nuNukkam,* the musical compositions are of ten kinds : *centuRai* etc.

TEXT 142 ibid

According to *aRivanaar's pancamarapu,* they are of nine kinds : *cintu* etc.

TEXT 143 patikam aru

paaTTuTai ceyyuL means a classic containing songs called *uru.*

TEXT 144 3 : 150 aru

The four parts of the *uru* are : *ukkiram, turuvai, aapookam,* and *pirakalai.*

TEXT 145 6 : 35 ATi

paaNi means song. It is in praise of God.

The parts of the (Tamil) song are : *mukanilai, koccakma,* and *muri* according to some.

TEXT 146 3 : 14 ATi

kantam is a musical composition (*uru*) set in one *taaLam* with limited number of feet.

pirapantam is a musical composition with no restriction as to number of feet and set in more than one *taaLam*.

kantam is the first and *pirapantam* the last kind of the twenty eight kinds of compositions figuring in *akanaa Takam-s*.

TEXT 147 3 : 12 ATi

vaNNam is a composition with sixteen feet.

TEXT 148 7 : 12-16 aru

"*kuuTai* is a song with four feet, the middle line being repeated: it may sometimes have less than four feet."

"*vaaram* is a song mellifluous in sound, with letters well arranged and flowing gracefully. It is an ancient form."

TEXT 149 3 : 16 aru

paaNi refers to *taaLam* or time measure. They are the five *taaLam-s, caccapuTam* etc., and forty-one *taaLam-s*, the first being *eeka taaLam* with half *maattirai* and the last being *paarvati loocanam* with sixteen *maattirai-s*.

TEXT 150 ibid

tuukku is based on *taaLam* and is of seven kinds: *centuukku* etc.

TEXT 151 ibid ATi

These are the names of the *maattirai-s:*
koTTu is half *maattirai:* written: க
acai is one *maattirai:* written: எ
tuukku is two *maattirais:* written: உ
aLavu is three *maattirai-s:* written: ஃ
Actions for these:
koTTu is beating: lit. pressing:
acai - beat and raising:
tuukku - beat and lifting:
aLavu - beat and keeping for the duration of three *maattirai-s*.

TEXT 152 7 : 17

What is the *taaLam*?

TEXT 153 3 : 67

Of the four kinds of *iyakkam* (tempo),
mutanaTai is very slow tempo:
tiraL is very fast tempo:
of the middle two,

vaarappaaTal song in the tempo called *vaaram* contains smooth flow of words and melody:

kuuTaippaaTal, a song in the tempo called *kuuTai* is rich in words and melody.

TEXT 154 *aanaaya naayanaar puraaNam*

He played *mullaippaN* first and adding to it the high taaram and uzhai, played *kooTippaalai* of which iLi becomes kural, spreading the fame of the name of *S'iva*.

TEXT 155 *tivaakaram*

kural, tuttam, kaikkiLai, uzhai, iLi, viLari and taaram are the names of the seven musical notes:

sa ri ga ma pa dha ni are their letters.

TEXT 156 *arapatta naavalar parata caattiram*

The musical notes are kural, tuttam, kaikkiLai, uzhai, iLi, viLari and taaram:
Their letters respectively are:
sa ri ga ma pa dha ni.

TRANSLITERATION

of

PASSAGES quoted from

CILAPPATIKAARAM

and

the two COMMENTARIES,

ARUMPATA URAI

and

ATIYAARKKUNALLAAR'S

with word meanings

TEXT 1 17 (13)

aaycciyar kuravai
cowherd women dance

aanku
there

tozhu viTai eeRu kuRittu vaLarttaar
manger bulls with intent reared

ezhuvar iLam kootaiyaar
seven persons young women

enRu[1] tan makaLai nookki
her daughter addressing

tonRupaTu muRaiyaan niRutti
ancient by method having arranged

iTai mutumakaL Ivarkuu
cowherd old woman to these

paTaittukkooL peyar iTuvaaL
created names gives

kuTamutal iTamuRaiyaa kural tuttam
from west leftwise ,, ,,

kaikkiLai uzhai iLi viLari taaram ena

,, ,, ,, ,, ,,

viritaru puunkuzhal veeNTiya peyaree
blossomed flower hair desired names

TEXT 2 17 (14)

maayavan enRaaL kuralai viRal veLLai
,, (she) said kural mighty white

aayavan enRaal iLi tannai aaymakaL
cowherd said iLi cowherdess

pinnai aam enRaaL oor tuttattai maRRaiyaar
,, will be said peerless tuttam others

munnaiyaam enRaaL muRai
as before said order

---

[1] Words like 'enRu,' 'ena,' 'ennum,' 'enpatu,' are not translated.

TEXT 3 17 (15)

maayavan ciiruLaar pinnaiyum taaramum
,, adjacent pinnai taaram

vaal veLLai ciiraar uzhaiyum viLariyum
bright white adjoining uzhai and viLari

kaikkiLai pinnai iTattaaL valattuLaL
,, ,, to the left is to the right

muttaikku nal viLari taan.
to taaram good viLari

TEXT 4 17 (16)

avaruL
among them

vaN tuzhaay maalaiyai maayavan meel iTTu
rich *tuLaci* garland ,, on placing

taNTaa kuravai taan uLpaTuvaal.
traditional ,, herself participates

TEXT 5 17 (17)

kuuttuLpaTutal
Participation in the Dance

avartaam
they

cennilai maNTilattaal kaRkaTaka kai koottu
equidistant circle crab hand clasping

annilaiyee aaTal ciir aayntuLaar munnal
in that position dance rhythm study first

kural koTi tan kiLaiyai nookki parappuRRa
,, girl her related one addressing wide

kollai punattu kuruntu ocittaan paaTutum
field ,, who broke we will sing

mullai tiim paaNi enRaaL.
,, sweet paN she said

TEXT 6 17 (18)

enaa
as she said so

kural mantamaaka iLi camanaaka
,, low ,, level

varanmuRaiyee tuttam valiyaa - uranilaa
in same sequence ,, high not strong

mantam viLari piTippaaL avaL naTpin
low ,, sings she fourth note

pinRaiyai paaTTu eTuppaaL.
Pinnai song begins

TEXT 7 17 (13) : 8 aru

vaTTappaalai varumaaRu :
circular scale as follows

"aazhiyum aarumpool kiiRi - cuuzha
circle daimeters like drawing around

erutaati kiizh ticai koNtu iiRaaRum eNNi
Taurus first east direction having taken twelve counting

karuti nilakkayiRRai kaaN."
considering field see

TEXT 8 ibid

"iLi iTapam kaRkaTakam aam viLari cinKam
" Taurus Cancer is ,, Leo

taLaraata taaram atu aam taLaraa
stable ,, it is stable

kural kool tanu tuttam kumpam kiLai amm
,, Libra Sagittarius ,, Aquarius kaikkiLai is

varalaal uzhai miinam aam,"
thus ,, Pisces is

TEXT 9 ibid

''kural tulai vil tuttam kaikkiLaiyee kumpam
,, Libra Sagittarius ,, kaikkiLai Aquarius

pariya[1] uzhai miinam paavaay ari taaram
x ,, Pisces O lady Leo ,,

kol eeRu iLi viLari kaRkaTakam kooppamainta
killer Taurus ,, ,, Cancer well arranged

tol eezhu icai narampiRku aam.''
old seven for musical notes are

TEXT 10 ibid

eezhu peNkLaiyum eezhu narampu aakki avarkaLai
seven girls seven musical note making them

narampu niRkum nilaikaLilee niRutti camanilai.
musical note standing in positions arranging equidistant

TEXT 10 A patikam : 77 Ati

kuaravai enpatu ezhuvar mankaiyar
,, seven girls

cezhunilai maNTala kai koottu
right positions circle hand clasping

annilaikku oTpa ninRu aaTal aakum.''
to that position in accord standing dance is

TEXT 11 17 (13) ATi

paalai naanku vakaippaTum.
musical scale four kinds

''aayam caturam tirikooNam vaTTam ena
line square triangle circle

paaya naankum paalai aakum.''
spread four musical scale are

---

1 Empty morphs are marked X.

TEXT 12 ibid

avaRRuL vaTTappaalai varumaaRu:
of those circular scale as follows
"vaTTam enpatu vakukkum kaalai
" when defining
oor eezh toTutta maNTalam aakum,"
one seven arranged circle is

TEXT 13 ibid

"caaN aLavu koNTatu oru vaTTam tan miitu
hand span measurement having a circle on
peeNi iru naalu perum ticai-kooNattu
with care be four big directions in angles
iru kayiRu meel ooTTi onpaanum muunRum
two cords over passing nine three
varu muRaiyee maNTalattai vai,"
coming order zodiac put
enpatu cuuttiram.
epigram

TEXT 14 ibid

caaNukku caaNaaka oru vaTTam kiiRi perum
to hand span hand span a circle having drawn big
ticaikaLin meelee iraNTu varampu
directions over two boundaries
kiiRi maNTalam
having drawn zodiac
ceytu panniraNTu kooNamaaka
having made twelve angles
vakuppatu nutaliRRu.
division spoke

TEXT 15 ibid

"etirum iraaci valam iTam aaka
proceding sign right to left
etiraa iTam miinamaaka - mutiraata
last place Pisces to be

iiraaRu iraacikaLai iTTu aTaivee nookkavee
twelve signs placing in order to see

eer aarnta maNTalam enRu eN."
beautiful zodiac consider

TEXT 16 ibid

iTTa panniraNTu kooNattil panniraNTu iraacikaLai
drawn twelve in angles twelve signs

niRuttinaal ivaRRul narampuTan
arranged of these with musical notes

iyalvana eezhu.
which are seven

TEXT 17 ibid

"eettum iTapam alavanuTan ciiyam
praised taurus with Cancer Leo

kool tanu kumpamoTu miinam ivai-paarttu
Libra Sagittarius Aquarius Pisces these having seen

kural mutal taaram iRuvaay kiTanta
,, first ,, last which lay

niral eezhum cempaalai neer."
in order seven ,, like

ivveezum iTapam karkaTakam cinkam
these seven Taurus Cancer Leo

tulaam tanu
Libra Sagittarius

kumpam miinam ena ivaRRuL niRkum.
Aquarius Pisces in these stand

TEXT 18 ibid

"tulai nilai kuralum tanu nilai tuttamum
Libra position kural Sagittarius position tuttam

nilaipeRu kumpattu neer kaikkiLaiyum
stable Aquarius appropriate kaikkiLai

miinattu uzhaiyum viTai nilattu iLiyum
in Pisces uzhai Taurus place iLi

maana kaTakattu manniya viLariyum
X in Cancer stable viLari

ariyiTai taaramum aNaivuRa koLalee."
in Leo taaram fittingly take

TEXT 19 ibid

innarampukaLin maattiraikaL varumaaRu:
of these notes maattirai-s as follows

"kural tuttam naanku kiLai muunRu iraNTu aanku
,, ,, four kaikkiLai three two there

uraiyaa uzhai iLi naanku - viraiyaa
said ,, ,, four X

viLari enin muunRu iraNTu taaram ena connaar
,, three two ,, they said

kaLariceer kaNNuRRavar."
field who saw

TEXT 20 ibid

taarattu uzhai piRakkum;
in taaram ,, is born

uzhaiyil kural piRakkum
in uzhai ,, is born

kuraluL iLi piRakkum
in kural ,, is born

iLiyuL tuttam piRakkum
in iLi ,, is born

tuttattuL viLari piRakkum
in tuttam ,, is born

viLariyuL kaikkiLai piRakkum
in viLari ,, is born

ivaRRuL mutalil toonRiya narampu taaram.
of these at first appeared note ,,

TEXT 21 ibid

vaTTappaalaiyilee naalu paNNum piRakkum.
in vaTTappaalai four paN-s are born

"taarattu uzhai toonRa paalaiyaazh taN kural
in taaram ,, if born ,, cool ,,
oorum uzhai toonRa kuRinciyaazh neeree
X in uzhai if born ,, directly
iLi kuralil toona marutayaazh tuttam
,, in kural if born ,, ,,
iLiyil piRakka neytaliyaazh."
in iLi if born ,,

TEXT 22 ibid

paalaiyaazhuLLe eezhu paalai icai piRakkum,
in paalaiyaazh seven paalai-s are born

TEXT 23 ibid

"kural iLiyin paakattai vaanki oor onRu
,, of iLi half taking away one each
varaiyaatu taarattu uzhaikkum viraivu inRi
without discrimination to taaram to uzhai steadily
ettum viLari kiLaikku iikka eentizhaiyaay
X ,, to kaikkiLai to give O lady
tuttam kural aakum col."
,, ,, will be say

TEXT 24 ibid

innarampil paalai piRakkum iTattu kuralum tuttamum
in these notes ,, when born kural tuttam
iLiyum naanku maattirai peRum; kaikkiLaiyum viLariyum
iLi four ,, have kaikkiLai viLari
muunRu maattirai peRum; uzhaiyum
three ,, have uzhai
taaramum iraNTu maattirai
taaram two ,,
peRum; ivaRRuL kural kuralaay ottu ninRatu
have of these ,, as kural coinciding which stood
cempaalai; itanilee kuralin paakattaiyum iLiyin paakattaiyum
,, of this of kural half of iLi half

vaanki kaikkiLai uzhai viLari taarattiRku oroo onRai
taking away ,, ,, ,, to taaram one each

koNTu ceerkka tuttam kural aay
adding ,, ,, becoming

paTumalaippaalai aam;
,, becomes

ivvaaRee tirikka ivveezhu
in the same way varying these seven

perum paalaikaLum piRakkum;
big paalai-s are born

piRakkunkaaltirinta kural mutalaaka eezhum piRakkum.
when born shifted ,, first to be seven are born

TEXT 25 ibid

kural kural aayatu cempaalai;
,, ,, became ,,

tuttam kural aayatu paTumalaippaalai;
,, ,, became ,,

kaikkiLai kural aayatu cevvazhippaalai;
,, ,, became ,,

uzhai kural aayatu arumpaalai;
,, ,, became ,,

iLi kural aayatu kooTippaalai;
,, ,, became ,,

viLari kural aayatu viLarippaalai;
,, ,, became ,,

taaram kural aayatu meeRcempaalai
,, ,, became ,,

ena valamuRaiyee
in clockwise method

eezhu paalaiyum kaNTukoLka.
seven paalai-s find

TEXT 26 10 : kaTTurai : 14

iireezh cakooTamum iTanilaippaalaiyum
fourteen cakooTayaazh anticlockwise palai

TEXT 27 8 : 35 ATi

kural mutalaaka eTuttu iLi kuralaaka vaacittaaL.
,, from kural having taken ,, as kural she played

vaTTappaalai iTamuRai
,, anti clockwise method

tiripu kuuRukinRaar.
shifting he speaks

uzhai kural aakiya kooTippaalai.
,, ,, became ,,

TEXT 28 3 : 70-79

iireezh toTutta cemmuRai keeLviyin
fourteen arranged right order of the notes

oor eezh paalai niRuttal veeNTi
sevn ,, to arrange

vanmaiyil kiTanta taara paakamum
high lay of taaram half

menmaiyil kiTanta kuralin paakamum
low which lay of kural half

mey kiLai narampil kaikkiLai koLLa
true of kiLai notes ,, to take

kaikkiLai ozhinta paakamum poRpuTai
,, remaining half beautiful

taLaraa taaram viLarikku iittu
unflinching ,, to viLari having given

kiLai vazhippaTTanaL aankee kiLaiyum
kaikkiLai merged there kaikkiLai

tan kiLai azhivu
her related one disappearance
kaNTu avaL vayin ceera
having seen with her merging

eenai makaLirum kiLai vazhi ceera
other girls like kaikkiLai merging

TEXT 29 3 : 80-81

meelatu uzhaiyuLi[1] kiizhatu kaikkiLai
above uzhai below ,,

vampuRu marapil cempaalai aayatu.
new in tradition ,, became

TEXT 30 3 : 72-78 ATi

vaTTappaalaiyin muTivu taanamaay valinta nilaimaiyinai
of vaTTappaalai last place high position

uTaiya taaram peRRa iraNTu
which has ,, had two

alakil orr alakaiyum
of maattirai-s one maattirai

ippaalaiyin mutal taanamaay
of this paalai first place

melivinil niRkum kural
low standing ,,

narampu peRRa naalu alakil iraNTu alakaiyum
note had four maattirai-s two maattirai-s

taaranarampil antarakkoolilee
in taram string in the middle

kaikkiLaiyaaka niRutta
as kaikkiLai making it stand

taaram taan kaikkiLai aayiRRu.
,, itself ,, became

anta ozhinta oor
that remaining one

---

[1] The reading 'uzhaiyuLi' in the place or 'uzhaiiLi' suggested by me has been accepted by the Board of Editors in the publication, "cilapparikaaram" by Murry and Co., Madras.

alakaiyum paNtai viLariyilee kuuTTa
maattirai old in viLari adding

avviLari tuttanarampu-
that viLari uttam note

aayiRRu, ippaTi pannirukaal tirikka panniru paalaiyum
became thus twelve times varying twelve paalai-s

piRakkum, panniru paalaiyin uru
are born twelve paalai-s ,,

toNNuuRRonRum panniraNTumaay
ninety one twelve

paNkaL nuuRRumuunRu aataRku
paN-s hundred and three to become

kaaraNam aam enakkoLka.
cause take

TEXT 31 3 : 84-88 aru

kaikkiLai kuralaay puTumalaippaalaiyum, tuttam kuralaay
,, as kural puTumalaippaalai ,, as kural

cevvazhippaalaiyum, kural kuralaay
cevvazhippaalai ,, as kural

arumpaalaiyum taRkizhamai
arumpaalai own property

tirintapin. muRpiRpaTiyee taaram kuralaaka
after being transformed in reverse order ,, as kural

kooTippaalaiyum, viLari kuralaaka viLarippaalaiyum, iLi
kooTippaalai ,, as kural viLarippaalai ,,

kuralaaka meeRcempaalaiyum aayina.
as kural meeRcempaalai became

TEXT 32 3 : 26 ATi

eezhu icai aavana, caTcam, riTapam, kaantaaram,
seven notes are shadja rishabha gaandhaara

pancamam, taivatam, niTaatam enpana.
pancama dhaivata nishaada

TEXT 33 ibid

"carikama patani enRu eezhu ezhuttaal......
sarigama pa dha ni seven by letters

TEXT 34 ibid

vankiyattu eezhu tuLaikaLil icai piRakkumaaRu;
in kuzhal seven in holes notes born way

ezhuttu ca ri ka ma pa ta ni,
letters sa ri ga ma pa dha ni

TEXT 35 14 : 153 ATi

carikamapatani ennum ezhu vakaippaTTa
sa ri ga ma pa dha ni seven kinds
ezhuttaTiyaaka
from letters

piRakkum kural mutalaakiya eezhum
born ,, first seven

TEXT 36 5 : 35-37 ATi

kural matalaay uLLa eezhu icaiyinaiyum ca ri ka ma
,, first being seven notes sa ri ga ma

pa ta ni ennum eezhu ezhttinaiyum
pa dha ni seven letters

TEXT 37 3 : 59-60

eeRRiya kural iLi enRu iru narampin
established ,, ,, two like notes

oppa keeTkum uNarvinan aaki
in agreement listening with one discernment being

TEXT 38 8 : 33

iNai kiLai pakai naTpu enRu innaanku
pair relative enemy friend these four

TEXT 39 8 : 33 aru

iNai iraNTu narampu
,, two notes

"iNai enappatuva kiizhum meelum
,, called below above

aNaiya toonRum aLavina enpa."
to coadlesce appear of measurement they say

TEXT 40 ibid

kiLai aintaam narampu
,, fifth note

"kiLai enappaTuva kiLakkumkaalai
,, called when speaking

kuralee iLiyee tuttam viLari
kural iLi ,, ,,

kaikkiLai ena aintaakum enpa."
,, five are they say

TEXT 41 ibid

naTpu naalaam narampu.
,, fourth note

TEXT 42 ibid

pakai aaRum muunRum
,, six three

"ninRa narampiRku aaRum muunRum
standing to note two three

cenRupeRa niRpatu kuuTam aakum."
X which stands ,, is

kuuTam eninum pakai eninum okkum.
,, if one says ,, if one says same

TEXT 43 17 (17) ATi

manta ucca camam kuRuvaar
low high level he speaks

TEXT 44 3 : 80-81 aru

uzhai mutal kakkiLai iRutiyaaka melivu naankum camam
,, first ,, last low four level

eezhum valivu muunRumaay.
seven high three

TEXT 45 3 : 26 aru

paalai nilaiyinaiyum paNNu nilaiyinaiyum.
,, state paN state

TEXT 46 3 : 46 aru

paN enRatu narappaTaivaal niRam toonRa
,, by arrangement of notes color to appear

paNNappaTaaninRa paNNum
made paN

paNNiyaRRiRamum, tiRamum
paNNiyal tiRam

tiRattiRamum
tiRattiRam

TEXT 47 3 : 149 aru

mankalappaNaay narappaTaivum uTaittaay iRukkiRa
as auspicious paN note arrangement has

paalaippaN.
,,

TEXT 48 3 : 26 ATi

"eTuttal mutalaa iru naankum paNNi
,, as first eight having made

paTuttamaiyaal paN enRu paar."
brought into existence ,, see

kiriyaikaL eTTu aavana:
actions eight are
eTuttal, paTuttal, nalital,
take up lay down become slender

kampitam, kuTilam, oli,
shake crookedness sound
uruTTu, taakku ena ivai.
twirl strike these

TEXT 49 3 : 41-42 ATi

icaippulavan aaLatti vaitta paNNiirmaiyai
musician sung ,, features
mutalum muRaiyum,
first order

muTivum, niRaiyum, kuRaiyum, kizhamaiyum, valivum,
end fulness deficiency own property high

melivum, camanum, varaiyaRaiyum,
low mediun range
niirmaiyum ennum patinoru
quality eleven

paakupaaTTinaanum aRintu.
aspects having known

TEXT 50 3 : 65 ATi

paaTukinRa paN varavukaLukku
singing ,, for ways

curam kuRaivu paTaamal
note without lacking

niRutti anta paNNukku ayal viravaamal
having set up that to paN foreign not mingling

nookki
having seen

TEXT 51 4 : 15 kuzhal vaLar mullai
,, foster ,,

TEXT 51 A 17 : (21)

mullaiyam tiinkuzhal keeLaamoo toozhi.
beautiful sweet ,, shall we not her comrade

TEXT 52 4 : 75 ATi

nootiRam-puRaniirmai enkiRa paN
,, ,, ,,

TEXT 53 ibid

"takkaraakam nootiRam kaantaarapancamamee
,, ,, kaantaarapancamam

tukkam kazhi coomaraakamee mikka tiRal
sadness removing coomaraakam very effective

kaantaaram enRu aintum paalai tiRam enRaar
,, five ,, ,, said

puuntaar akattiyanaar poontu."
flower garland ,, X

TEXT 54 6 : 35 ATi

paN kaucikam
,, ,,

TEXT 55 7 : (47)

......kaikkiLai ceer kural tiintoTai
,, coincide ,, sweetly arranged

cevvazhippaalai icai ezhii-i
,, melody having made

TEXT 56 7 : (48)

viLari irankinaar paaTum paN
,, sad people singing ,,

TEXT 57 8 : 24 aru

meeRcempaalai ennum paNNai
,, paN

kaNTattaal paaTi appaNN-
by voice having sung that

aiyee yaazhinum paaTinaaL
paN itself on yaazh sang

TEXT 58 ibid

muRpaTa kaNTattaalee paaTi
earlier by voice having sung

enavum cempaalaippaNNai
cempaalaippaN

yaazhinum paaTinaaL enavum koLka.
on yaazh sang take

TEXT 59 8 : 35 ATi

eezhu perum paalaiyinaiyum mutal
sveen big paalai first

aTuttu nuuRRu munnRu
following a hundred & three

paNNum piRakkum: avaRRuL
paN-s born of those

cempaalaiyuL piRakkum paNkaL:
in cempaalai born paN-s

paalaiyaazh, naakaraakam aakari
,, ,, ,,

tooTi, kauTi, kaantaaram,
,, ,, ,,

centurutti, utayakiri, ena ivai.
,, ,, these

TEXT 60 ibid

"naal perum paNNum caati naankum
four big paN class four

paaRpaTu tiRanum paN enappaTumee."
derived tiRam ,, called

TEXT 61 11 : 88

cevvazhippaNNil ciRai vaNTu araRRum
in cevvazhippaN wing bee hums

TEXT 62 13 : 148

porunar vaikaRai paaNiyum
musicians dawn paN

TEXT 63 13 : 106 ATi

paN paNNiyal tiRam tiRattiRam
,, ,, ,, ,,
ennum ivai campuuraNam
these ,,

caaTavam auTavam caturttam ena
,, ,, ,,
vaTamozhi peyaraanum vazhankum
Sanakrit by names current

TEXT 64 13 : 112 ATi

aacaan ennum paNNiyal aacaan
,, ,, ,,
caati naalvakai aavana:
,, four kinds are

aacaanukkuu akaccaati kaantaaram puRaccaati cikaNTi,
to aacaan ,, ,, ,, ,,

aruku caati tacaakkari peruku caati cutta kaantaaram
,, ,, ,, ,, ,, ,, ,,

ena koLka.
take

TEXT 65 ibid

paN nuuRRumuunRu avai
,, one hundred & three they
naalvakaippaTum: paN, paNNiyal.
four kinds ,, ,,

tiRam, tiRattiRam ena,
,, ,,

TEXT 66 14 : 149

maattirai aRintu mayankaa marapin
,, having known not deviating tradition

TEXT 67 14 : 166 ATi

paN naanku aavana: paalai
,, four are ,,

kuRinci marutam cevvazhi enpana.
,, ,, ,,

avaRRin tiRankaL aavana:
their tiRam-s are

paalaikku puRam teevaaLi:
to paalai ,, ,,

aruku-ciirkooTikam: peruku-naakaraakam:
,, ,, . ,, ,,

kuRnicikku puRam
to kuRinci ,,

centu: aruku maNTilam: peruku-ari
,, ,, ,, ,, ,,

marutattiRku puRam-aakari:
to marutam ,, ,,

aruku-caaya veeLakolli:
,, ,, ,,

peruku-kinnaram cevvazhikku puRam-
,, ,, to cevvazhi ,,

veeLaavaLi aruku-ciiraakam: peruku-canti.
,, ,, ,, ,,

TEXT 68 26 : 25

aaRiru matiyinum...
twelve zodiac signs

TEXT 69 27 : 224

kuRattiyar paaTiya kuRinci paaNiyum
kuRava women sang ,, paaN

TEXT 70 patikam ATi

aacaan tiRattin enpatanaal
,, of tiRam because said

kaantaara pancamam kuuRinaar.
,, ,, he spoke

TEXT 71 3 : 26-36 ATi

aaLatti ceyyumiTattu tennaa enRum
,, when doing ,,

tenaa enRum iraNTu
,, two

acaiyum kuuTTI tennaa tenaa enRum paaTappaTum
syllables joining ,, ,, sung

ivaitaam kaaTTaaLatti, niRavaaLatti,
these ,, ,,

paNNaaLatti ena muunRu
,, three

vakaippaTum, ivaRRuL kaaTTaaLatti
kinds of these ,,

accuTan nikazhum.
with accu occurs

paNNaaLatti paNNaiyee karuti
,, only paN considering

vaikkappaTum. accu
is done ,,

taaLattuTan nikazhum, paaraNai
with taaLam occurs ,,

kuuttuTan nikazhum.
with dance occurs

niRavaaLatti paaraNaiyuTan nikazhum.
,, with paaraNai occurs

TEXT 72 ibid

kuRRezhuttaalum neTTezhuttaalum
by short vowels by long vowels

aaLatti ceyyappaTum.
,, is done

kuRRezhuttu aintu aavana: a i u e o: neTTezhuttu
short vowels five are a i u e o long vewels

aintu aavana: aa il uu ee oo
five are ,, ,, ,, ,, ,,

ena ivai. mey ezhttaakiya
these consonants

patineTTu ezhuttuLLum mavvum
eighteen among letters ma

navvum tavvum ena muunRu
na ta three

ezhuttum allaa maRRai
letters except other

ezhuttukkaL aaLattikku varappeRaa.
letters for aaLatti not to be used

TEXT 73 uraippaayiram ATi
preface to commentary

perum kalam aavatu peeriyaazh:
,, ,, is ,,

atu kooTTinatu aLavu
it of kooTu measurement

panniru caaNum vaNar aLavu caaNum pattar
twelve hand span ,, measurement hand span ,,

aLavu panniru caaNum
measurement twelve hand span

ippeRRikku eeRRa aaNikalum
corresponding to it pegs

tivavum untiyum peRRu aayiram kool toTuttu
tivavu unti having thousand strings strung

iyalvatu.
figures

TEXT 74 ibid

"aayiram narampiRRu aati yaazh aakum."
thousand has strings earliest ,, is

TEXT 75 patikam: ATi

"kuTamutal ... "enRatanaal,
from west as he said

mullai yaazhum ... kuuRinaar.
mullai yaazh also he spoke

TEXT 76 2 : 79

yaazhiTai piRavaa icaiyee enkoo
in yaazh not born melody shall I say

TEXT 77 3 : 26

yaazhum kuzhalum ciirum miTaRum
yaazh kuzhal rhythm voice

TEXT 78 3 : 63

vaNNa paTTaTai yaaz meel vaittu
color iLi ,, on having placed

TEXT 79 3 : 63 aru, ATi

paTTaTai enRatu narampukaLil
,, among notes

iLikku peyer; ennei? ellaa
for iLi name what all

paNNiRkum aTimaNai aatalin.
for pan-s base because it is

vaNNam enRutu niRam.
,, color

niRattinai uTaiya paTTaTai
color having ,,

enRavaaRu; itanai yaazh meel
this ,, on

vaittu enka. iLikkiramattaalee
placing by iLikkiramam

paNkaLai yaazh meel vaittu
pan-s ,, on placing

TEXT 80 3 : 91

yaazh meel paalai iTamuRai meliya
,, on ,, right to left becoming lower

TEXT 81 3 : 139–142

kuzhal vazhi ninRatu yaazhee yaazh vazhi
,, following stood yaazh ,, following

taNNumai ninRatu tekavee taNNumai
,, stood suitably ,,

pinvazhi ninRatu muzhavee muzhavoTu
following stood muzhavu with muzhavu

kuuTi ninRu icaittatu aamantirikai
joining sounded ,,

TEXT 82 3 : 26 ATI

yaazh naal vakaippaTum; avai
,, four kinds they

peeriyaazh, makarayaazh,
,, ,,

cakooTayaazh' cenkooTTiyaazh enpana
,, ,,

ivai naalum
these four

perumpaanmaiya; ciRupaanmaiyaan varuvana
most common less common ones

piRavum uLa
others also are

TEXT 83 ibid

innaalvakai yaazhiRkum narampu koLLumiTattu
these four kinds for yaazh strings when taking

peeriyaazhiRku irupattonRum, makarayaazhiRku
for peeriyaazh twenty one for makarayaazh

pattonpatum,
nineteen

cakooTayaazhiRku patinaalum, cenkooTTiyaazhiRku
for cakooTayaazh fourteen for cenkooTTiyaazh

eezhum koLLapaTum
seven are taken

TEXT 84 5 : 35-37

kuzhalinum yaazhinum kural mutal eezhum
in kuzhal in yaazh ,, first seven

vazhuvinRu icaittu vazhi tiRam kaaTTum
without blemish playing derived ,, showing

arum peRan marapin perum paaN irukkaiyum
rare tradition great musicians residences

TEXT 85 5 : 222 aru

paNNai collukinRa yaazh narampu poola
paN speaking ,, string like

TEXT 86 5 : 52 ATi

yaazh mutalaakiya narampu
,, first stringed

karuvikaLai uTaiyaarum
instruments those who have

TEXT 87 6 : 172

tiruntu kool nal yaazh
corrected string good ,,

TEXT 88 7 : (i) 3-8

pattarum kooTum aaNiyum narampum enRu
,, ,, peg string

ittiRattu kuRRam niinkiya
this kind defect removed

yaazh kaiyil tozhutu vaanki
,, in hand having saluted receive

paNNal parivaTTaNai, aaraaytal taivaral
,, ,, ,, ,,

kaNNiya celavu viLaiyaaTTu kaiyuuzh
rapid ,, ,, ,,

naNNiya kuRumpookku enRu naTTiya
made ,, prescribed

eN vakaiyaal icai ezhii-i
eight by klnds melody making

TEXT 89 7 :(1) 12-20

vaartal vaTittal untal uRazhtal
,, ,, ,, ,,

ciiruTan uruTTal teruTTal aLLal
with rhythm ,, ,, ,,

eeruTai paTTaTai ena icaiyoor vakutta
beautiful ,, musicians classified

eTTu vakaiyin icai karaNattu
eight kinds techniques of playing

paTTa vakaiyin ceviyin oorttu
types by ear discerning

eevalan pin paaNi
I do not command then time measure

yaatu ena
what

koovalan kai yaazh niiTTa avanum
,, hand ,, offering he too

kaviriyai nookkinavum kaTal kaanalvari paaNiyum
kaaviri about sea ,, song

maatavi manam makizha vaacittal toTankuman
,, mind to be pleased playing began

TEXT 90 7 : (1) 4 aru

kuRRam aavana: aatava vaata
defects are sunlight wind

paya caayai enpana
water shade

TEXT 91 7 : (1) 5-8 aru

paNNal aavatu:
,, is

"valakkai peru viral kural koLa ciRuviral
right hand thumb ,, take little finger

villakkinRu iLivazhi keeTTum
without omission as iLi listening

iNaivazhi aaraayntu iNai koLa muTippatu
as octave studying to be in unison finishing

viLaipparu marapil paNNal aakum.',
rare in tradition ,, is

TEXT 92 ibid

"aaraaytal enaptu amaivara kiLappin
,, appropriate if one says

kural mutalaaka iNaivazhi keeTTum
,, being first as octave listening

taaramum uzhaiyum tammil keeTTum
taaram uzhai in them listening

tuttamum viLariyum tunnaRa keeTTum
tuttam viLari without trouble listening

vilari kaikkiLai vitiyuLi keeTTum
,, ,, as prescribed listening

taLaraataakiya tanmaittaakum
not slackening has the quality

TEXT 93 7 : (1) 12–16 aru

vaartal enRatu cuTTu viral tozhil ceytal vaTittal
,, index finger action doing ,,

enRatu cuTTuviralum peruviralum
index finger thumb

kuuTTi narampai
joining string

akamum puRamum aaraaytal untal
in out studing

enRatu narampukaLai
string

unti valivil paTTatum melivil paTTatum
having plucked which is high which is low

niralpaTTatum niral izhipaTTatum enRu aRital;
which is in order which is not in order knowing

uRazhtal enRatu onRiTaiyiTTum
,, one intervening

iraNTiiTaiyiTTum aaraaytal;
two intervening studying

uruTTal enRatu iTakkai cuTTuviral
,, left hand index finger

taanee uruTTalum
itself twirling

valakkai cuTTuviral taanee uruTTalum
right hand index it self twirling

cuTToTu peruviral
with index finger thumb

kuuTTi uruTTalum iru peru viralum
joining twirling two thumbs

iyaintu uTan- uruTTalum
together twirling

TEXT 94 7 : (24) aru

kalam-yaazh
,, ,,

TEXT 95 8 : 25 aru

"toNNupaTu tivavin muNTaka nal yaazh"
nine tivavu good ,,

TEXT 96 8 : 27-28

valakkai pataakai kooTToTu ceertti
right hand ,, with kooTu joining

iTakkai naal viral maaTakam tazhii-i
left hand four fingers ,, gripping

TEXT 97 8 : 30-32

vempakai niikkum virakuLi aRintu
dissonance removing expedient having known

pizhaiyaa marapin iireezh koovaiyai
unfaltering tradition fourteen series

uzhai mutal kaikkiLai iRuvaay kaTTi
,, first ,, last having tied

TEXT 98 ibid aru

'' kuralee tuttam iLi ivai naankum
kural ,, ,, these four

viLari kaikkiLai mumuunRaaki
,, ,, three each

taLaraa taaram uzhai ivai iiriraNTu
unflinching ,, ,, these two each

ena ezhum enpa aRinticinooree ''
arise say those who know

TEXT 99 8 ; 44 aru

muRpaTa miTaRRil paaTiya paNNee
first invoice sung paN itself

yaazhinmeel vaippatu
on yaazh placing

TEXT 100 ibid

'' paruntum atan nizhalum paaTTum ezhaalum''
eagle its shadow verse melody

TEXT 101 8 : 23–26 ATi

yaazh vaacikkum muRai
,, playing way

'' nallicai maTantai nallezhil kaaTTi
good music lady beautiful

alliyam pankayattu ayan inttu paTaitta
lotus lord of creation sweetly created

teyvam caanRa tiincuvai nalyaazh
divine sweet good ,,

meypeRa vaNanki meelTu kiizh puNarttu
with body bowing top bottom together

iru kaiyin vaanki iTavayin irii-i
two with hands receiving left placing

maruviya vinayam aaTTutal kaTanee
appropriate song on God playing proper

vinayam -teevapaaNi.
,, song on God

TEXT 102 8 : 27-27 ATi

pataakai kai aavatu peruviral
,, hand is thumb

kuncittu ozhinta
bending remaining

viral ellaam nimirttal
fingers all keeping straight

maaTakam-viikkum karuvi
,, tightening device

atu munnar aaNi enpatanul kuuRinaam
that earlier ,, we spoke

TEXT 103 8 : 29-30 ATi

"cempakai enpatu paNNooTu uLaraa
enemy note with paN not agreeing

inpamil oocai enmanaar pulavar."
without sweetness sound say poets

TEXT 104 ibid

"conna maattiraiyin oonka icaittiTum
said maattirai exceed sounding

curuti aarppee"
s'ruti aarppu

TEXT 105 8 : 31-32 ATi

kural mutal eezhinum mun
,, first seven before

toonRiyatu taaram;
which appeared ,,

taarattil mutal piRappataakiya uzhai kural aay
in taaram first born ,, ,, being

kaikkiLai taaram aakiya kooTippaalia
,, ,, become ,,

mutal piRakka
first to appear

kaTTi
having tied

TEXT 106 11 ; 87-92 ATi

cevvazhiyaazh paN
,, ,,

TEXT 107 13 : 106-109

cenkooTTiyaazhin
of cenkooTiyaazh

tantirikarattoTu tivavuRuttuyaattu
with tantirikaram tying tivavu

oRRuRuppu uTaimaiyil paRRu
part for taaLam having

vazhi ceertti
,, joining

uzhai mutal kaikkiLai iRuvaay kaTTi
,, first ,, last having tied

TEXT 108 13 : 108 ATi

oRRuRuppu narampinum
part for keeping taaLam with strings

pattarinum taakkuvatoor
with pattar attached

karuvi
device

TEXT 109 13 : 106 ATi

naal perum paNNiRkum mutal aakiya
four big for paN-s base

naal vakai yaazh
four kinds ,,

TEXT 110 13 : 107 ATi

tanttirikaram enpatu narampu
,, string

tuvakkuvataRku takaippu
for starting surrounding wall

ozhiya iru caaN naal viral
leaving two hand span four ,,

niiLamaaka kuRukkiTattu
long across

ceerttum amaippatoor* uRuppu
built part

TEXT 111 ibid

tivavu enpatu narampukaLai valipeRa
,, strings tightly

kaTTum vaarkkaTTu
binding leatherstrap

TEXT 112 13 : 108 ATi

"cenkooTTiyaazhee cevvitin teriyin
cenkooTTiyaazh well if known

aRu vakai uRuppiRRu aakum enpa"
six kind has parts is they say

---

*Vipularanda Adigal has suggested this correction in the place of 'aimpattor' which means fifty one and does not make any sense in the context.

"avai taam
they

kooTee tivavee oRRee* . . . . . .
kooTu tivavu oRRu

tantirikaramee narampoTu aaRee"
tantirikaram with string six

TEXT 113 17 :(26) ATi

taaLa aRutiyai uTaiya narampai uruvi
time measure end having string having plucked

vaacikkum naaratanaar koLai
playing ,, ,,

enpatu oRRaRuppu
marking the beat

TEXT 114 28 : 55

vaNar kooTTu yaazh
curved having kooTu"

TEXT 115 3 : 26 ATi

miTaRum enRatu-cariira viiNai
voice body ,,

TEXT 116 6 : 18

naaratan viiNai
,, ,,

TEXT 117 6 : 22-23

viiNai maNmicai tankuka
,, on earth may it remain

TEXT 118 3 : 26 aru

viral uLar tuLaiyum uutu tuLaiyum uTaittaay
finger holes mouth hole having

---

*The mss, was damaged here.

TEXT 119 3 : 67-68 aru

paaTaliTattu conniirmaiyin
in the song words
ezhuttukkaL citaiyaamal
letters without mutilating

ezhuttai ezhuttaaka icaikkum kuzhaloon
letter as letter playing kuzhal player

TEXT 120 3 : 92

kuzhal meel kooTi valamuRai meliya
,, on kooTippaalai left to rigth to get lower

TEXT 121 3 : 26 ATi

kuzhal-vankiyam; ataRku muunkil,
,, ,, for it bamboo
cantanam, veNkalam,
sandalwood bronze

cenkaali, karunkaali ena aintum aam ivaRRuL
red wood ,, five are of these

muunkilil ceyvatu uttamam
in bamboo making best

TEXT 122 ibid

niiLam irupatu viral; cuRRaLavu naalarai viral
length twenty ,, circumference four and a half

itu tuLai iTum iTattu nellariciyil
this holes whenmaking in rice grain
paati maram niRutti
half wood leaving

kaTaintu veNkalattaalee aNaicu
turning in lathe of bronze rim
paNNi iTamukattai
having made left face

aTaittu valamukam veLiyaaka viTappaTum.
having closed right face open is left

TEXT 123 ibid

tuLai aLavu niiLam
hole measurement length

irupatu viral itilee
twenty ,, of this

tuumpu mukattin iranTu niikki
left face two leaving

mutal vaay iTTu
first hole having made

immutal vaaykku eezhankulam viTTu vaLaivaayinum
from this first hole seven viral leaving at open end

iraNTu niikki naTuvil ninRa onpatu
two leaving middle nine

viralinum eTTu tuLai
viral eight holes

iTappaTum. ivaRRuL onRu muttirai
are made of these one ,,

enRu kazhittu niikki
leaving

ninRa eezhinum eezhu viral
remaining in seven seven ,,

vaittu uutappaTum
placing is played

tuLaikaLin iTaipparappu oru viral
of holes mid-space one ,,

akalam koLLappaTum
width is taken

TEXT 124 ibid

ivvankiyam uutumiTattu vaLaivaay
this kuzhal when playing open end.

ceernta tuLaiyai
close hole

muttirai enRu niikki eezhu viral
,, leaving seven fingers

aavana; iTakkaiyil
are in left hand

peruviralum ciruviralum niikki maRRai
thumb little finger omitting other

muunRu viralum
three fingers

valakkaiyil peruviral ozhinta naanku
in right hand thumb except four

viralum aaka
fingers

eezhu viralum
seven fingers

TEXT 125 3 : 27

taazh kural taNNumai
low sounding ,,

TEXT 126 3 : 54-55

taNNumai arum tozhil mutalvanum
,, difficult work player

TEXT 127 ibid aru

aakkal-maRRa karuvikaLin kuRaiyai nirappukai
,, other of instruments deficiency filling up

aTakkal-maRRa karuvikaLin mikutiyai aTakkutal
,, other of instruments excess suppressing

miittiRampaTaamai-aakkumiTattum
,, when filling

aTakkumiTattum irantiram
when suppressing gap

toonRaamal ceykai cittirakkaraNam ivvanaittum
without appearing doing ,, all this

ceyyumiTattu kaittozhil azhakupeRa
when doing hand work beautifully

ceytu kaaTTa valla
who can execute

TEXT 128 3 : 140 aru

taNNumai-mattaLam
,, ,,

TEXT 129 3 : 27 ATi

"peerikai paTakam iTakkai uTukkai
,, ,, ,, ,,

ciirmiku mattaLam callikai karaTikai
beautiful ,, ,, ,,

timilai kuTamuzhaa takkai kaNappaRai
,, ,, ,, ,,

tamarukam taNNumai taavil taTaari
,, ,, ,, ,,

antari muzhavu oTu cantiravaLaiyam
,, ,, ,,

montai muracu kaNvitu tuumpu
,, ,, ,, ,,

nicaaLam tuTumai ciRupaRai aTakkam
,, ,, ,, ,,

maacil takuNiccam viraleeRu paakam
flawless ,, ,, ,,

tokka upaankam tuTi perumpaRai ena
" " "

mikka nuuloor virittu uraittanaree."
authors " described

TEXT 130 ibid

ivai akamuzhavu akappuRamuzhavu
these " "
puRamuzhavu puRap-
"

puRamuzhavu paNNamaimuzhavu
" "
naaNmuzhavu kaalai-
"

muzhavu ena ezhu vakaippaTum
" seven kinds

TEXT 131 ibid

mattaLam mattu oocai peyar;
" " sound name
icai iTanaakiya
music place

karuvikaTkellaam taLam aatalaan
for all instruments base because it is
mattaLam enRu peyar
" " name

aayiRRu, callikai "cal' enRa oocaiyai
become " ' sound
uTaittu aatalaal peRRa peyar
has therefore got name

aavanci eninum kuTukkai eninum iTakkai
" " "
eninum okkum
same

vinaikkiriyaikaL iTakkaiyaal ceytalin
actions by left hand because doing
iTakkai enRu
,,

peyar aayiRRu
name because

karaTi kattinaaRpoolum occaiyai uTaittu aatalaal
bear like the cry sound has therefore

karaTikai enRu peyar aayiRRu
,, name became

TEXT 132 3 : 141 ATi

muzhavu-kuTammzhaa
,, ,,

TEXT 133 14 : 151 ATi

"mattaLam taNNumai iTakkai callikai ena
,, ,, ,, ,,

vaitta naankum uttamakkaruvi"
placed four best instruments

TEXT 134 3 : 143 aru

aamantirkai aavatu-iTakkai
,, is ,,

TEXT 135 26 : 194 aru

paaNTil-kancataaLam
,, bronze cymbals

TEXT 136 5 : 87-88

urumu kural muzhakkattu
thunder sound roar

TEXT 136 A 5 : 141-142 aru

muracai yaanaiyil eeRRi
muracu on elephant having mounted
vizhavin mutalum
of festival beginning

muTivum aRivittu
end having proclaimed

TEXT 137 13 : 140 aru

kaalai muracam-paLLiyezhucci muracam
morning ,, awakening ,,

TEXT 138 13 : 144

vaaLoor eTutta naaLaNi muzhavam
soldiers taken ornament muzhavu

ibid aru

viirarkku aracan varicaiyaaka koTutta muzhavu
to warriors king as reward given ,,

TEXT 139 13 : 32 ATi

uR TaTTa TaT ena paRai koTTal
,, ,, ,, ,, beating

TEXT 140 14 : 14 ATi

muzhavam cankattooTum kompooTum iyampa
mazhavu with conch with horn to sound

TEXT 141 6 : 35 ATi

icaippa pattu vakaippaTum
musical compositions ten kinds
centuRai veNTuRai
,, ,,

perunteevapaaNi ciRuteevapaaNi
,, ,,

muttakkam peruvaNNam
,, ,,

aaRRuvari, kaanalvari, virimiraN,
,, ,, ,,

talaipookumaNTilam ena.
,,

TEXT 142 ibid

icaippaakkaL onpatu vakai
musical compositions nine kinds
enpa : avai : cintu
they say they cintu ,,

tiripatai, cavalai, camapaataviruttam, centuRai,
,, ,, ,, ,,

veNTuRai, prunperunteevapaaNi, ciRuteevapaaNi
,, ,, ,,

vaNNam ena ivai.
,, ,,

TEXT 143 patikam aru

paaTTuTai ceyyuL-uru aakiya
,, ,, ,,

paaTTukkaLai uTaiya kaaviyam.
songs having classic

TEXT 144 3 : 150 aru

naal uRuppu aavana: ukkiram turuvai aapookam
four parts are ,, ,, ,,

TEXT 145 6 : 35 ATi

teevapaaNi : paaTTu : atu
,, song it be
teevar paraavutal aayiRRu
God praise was

icaittamizhil mukanilai, koccakam,
in Tamil music ,, ,,

muri enpa oru caar
,, one group

aaciriyar
authors

TEXT 146 3 : 14 ATi

akanaaTakakankaLukku uriya uru
for dramas belonging forms

aavana : kantam mutalaaKa
are ,, first

pirapanta uru iiRaaka uLLa irupatteTTum, ivaRRuL,
,, ,, last twenty eight of these

kantam-aTi varaiyaRai uTaittaay
,, foot limit having

oru taaLattaal puNarppatu.
one by taaLam composed

pirapantam-aTi varaiyaRai inTi pala taaLattaal
,, limit without many with taaLam

puNarppatu,
composed

TEXT 147 3 : 12 ATi

vaNNam-naanaankaTiyaan varuvatu
,, with sixteen feet comes

TEXT 148 7 : 12-16 aru

''kuuTai enpatu kuuRunkaalai
,, when speaking

naankaTi aaki iTai maTakki
four feet middle repeating

naankaTi axki naTattaRkumurittee.''
four feet less may have

''vaaram enpatu vakukkunkaalai
,, when defining

naTaiyinum oliyinum ezhuttinum nookki
movement sound letters considering

toTai amaintu ozhukum tonmaittu enpa,''
arrangement formed ancient they say

TEXT 149 3 : 16 aru

paaNiyum enRatu-taaLankaLum
,, time measures

avai caccapuTam mutalaana
they ,, first

pancataaLamum, arai maattirai
five taaLam-s half ,,

uTaiya eeKa taaLam mutalaaka
half ,, ,, first

patinaaRu, maattirai uTaiya
sixteen ,, having

paarvatiloocanam iiRaaka conna
,, last said

naaRpattoru taaLamum
forty one taaLam-s

TEXT 150 ibid

tuukku enRatu ittaaLankaLin
,, these taaLam-s

vazhi varum centuukku,
derived ,,

matalaittuukku, tuNivuttuukku
,, ,,

kooyiRRuukku, nivapputtuukku
,, ,,

kazhaaRRuukku neTuntuukku enRu
,, ,,

collappaTTa eezhu tuukkukaLum
said seven tuukku-s

TEXT 151 3 : 16 ATi

ivai maattirai peyarkaL: koTTu arai
these ,, names ,, half

maattirai ataRku
,, its

vaTivu:.க acai oru maattirai ataRku
form ,, one ,, its

vaTivu எ; tuukku iraNTu
form ,, two

maattirai ataRku vaTivu உ; aLavu muunRu
,, form ,, three

maattirai ataRku
,, its

vaTivu ஃ ivaRRin tozhil varumaaRu
form of these action as follow

koTTu aavatu amukkutal
,, pressing

acai aavatu taakki ezhutal tuukku
,, striking rising ,,

aavatu taakki tuukkutal
striking lifting

aLavu aavatu taakkina oocai neeree
,, striking sound exactly

muunRu maattirai
three ,,

perum aLavum varatul
get duration coming

TEXT 152 7 : 17

paaNi yaatu
taLam what

TEXT 153 3 : 67 aru

iyakkam naankinum mutanaTai mikavum
tempo four ,, very
taazhnta celavinai
slow movement

uTaittu aatalaanum tiraL mikavum muTukiya naTaiyai
has therefore

uTaittu aatalaanum tavirntu iTaippaTTa vaarapaaTal
has therefore excepting medium ,,
col ozhukkamum icai ozhukkaamum
word flow melody flow
uTaittu aatalaanum
has therefore

kuuTaippaaTal col ceRivum
,, word richness
uTaittu aatalaanum
has therefore

TEXT 154 *aanaaya naayanaar puraaNam*

maaRu mutal paNNina pin vaLar
change first after making fostered
mullaippaN aakki
,, making

eeRiya taaramum uzhaiyum kizhamai koLa iTum taanam
raised taaram uzhai to be owned place

aaRulaavum caTai muTiyaar
river flowing s'iva with matted

ancezhuttin icai peruka
locks five letters fame spread

kuuRiya paTTaTai kural aam
said iLi ,, become

koTippaalaiyinil niRutti
in kooTippaalai letting it stand

TEXT 155 tivaakaram

kuralee tuttam kaikkiLai uzhaiyee
kural ,, ,, uzhai

iLiyee viLari taaram enRu ivai
iLi ,, ,, these

ezhu vakai icaikkum eytum peyaree.
seven kinds for notes get names

cavvum rivvum kavvum mavvum
sa ri ga ma

pavvum tavvum nivvum enRu ivai
pa dha ni these

eezhum avaRRin ezhuttee aakum.
seven their letters are

TEXT 156 *arapatta naanalar parata caattiram*

kuralee tuttam kaikkiLai uzhai iLi
kural ,, ,, ,, ,,

tiramuku viLari taaram aam muRaiyee
stable ,, ,, are respectively

carikamatani ivaRRin aKkaram aam.
sa ri ga ma pa dha ni of these letters are

REFERENCES

1. K. A. Nilakanta Sastri, *History of South India*, 85
2. John R. Marr. "Tamil Literature," *Enc. Br.* 21 : 648
3. U. V. Swaminatha Aiyar, *Cilappatikaaram*, xvi, xvii
4. Alain Danielou, *Shilappadikaram*, ix
5. K. A. Nilakanta Sastri, *History of South India*, 70
6. ,, *ibid.* 2
7. Saarngadeva, *sagiita ratnaakara*, Ip. 199
8. Sambamoorthy "Kudumiyaamalai Inscriptions," *Dictionary of Music*, II, 343.
9. S. Ramanathan, "Raghunatha mela vina", *Journal of the Music Academy*, 35 : 145

GLOSSARY

Note : The serial order follows the English alphabet.

aacaan - a paN.

aacaan tiRam - a paN.

aaciriyar - author, teacher.

aakari - a paN.

aakkal – lit. making; filling up by the *taNNumai* player for the deficiency of other instruments.

aaLatti - melodic improvisation; same as *aalaapana*.

aamantirikai - *iTakkai*, a percussion instrument.

aampal - kind of *kuzhal* also a paN.

aampal kuzhal - kind of *kuzhal*.

aanaaya naayanaar puraaNam - story of cowherd saint in *ceekkizhaar's tiruttoNTar puraaNam*.

aanantai - a paN.

aaNi - peg; part of *yaazh*.

aapookam - one of the parts of *uru*.

aaraaytal – lit. deep study; a technique of *yaazh* playing.

aariya kuccari - a paN.

aariyaveeLar kolli - a paN.

aarookaNam - ascent in the musical scale.

aaRRu vari - Tamil song about a river.

Aativaayilaar - author of *parata ceenaapatiiyam*.

aati yaazh - lit. first *yaazh*; *yaazh* with thousand strings; same as *perunkalam*:

aavanci - *iTakkai*, a percussion instrument, covered with cow-skin

aayappaalai - linear musical scale.

aaycciyar kuravai - dance of the cowherd women, the name of a chapter in C.

Aazhvaar-a - Tamil saints who composed hyms on *vishNu*.

acai - action pertaining to *taaLam*; also empty morph.

aimpuzhaikkuzhal - *kuzhal* with five holes.

akamuzhavu - a percussion instrument,

akanilai - a classification of paN.

akshara - a letter, syllable, a division of a *taaLam*.

alaku - *maattirai*, pitch interval between notes.

aLavu - action pertaining to *taaLam*.

aLLal - a technique of *yaazh* playing.

alatonia scholaris - a seven-leaved milk plant, *eezhilaippaalai*.

ammaanaivari – Tamil song sung by girls while playing with colored wooden balls.

ampaNavar - musicians

aNaicu - metal rim around the left tip of *kuzhal*.

ankulam - *viral*, linear measurement 3/4".

antaaLi - a paN.

antaaLi paaTai - a paN.

antara gaandhaara (S) - name of a note, kaikkiLai.'

antaram - gap, interval.

antari - a percussion instrument.

anti - a paN.

anuttira panacamam - a paN.

ari - lit, lion; sign Leo; also a paN.

aRivanaar - author of *panamacarapu*.

arukiyal, aruku - a classification of paN.

arumpaalai - one of the seven *paalai-s*.

arumpata urai - lit, meaning of rare words, a commentary of C.

arumpata urai aaciriyar - author of *arumpata urai*.

ArunaKiri - Saint, composer of *tiruppuKazh*.

aruTpuri - a paN.

aTakkal - lit. suppressing, keeping in check by the *taNNumai* player when other instruments get too loud.

audava (S) - *raaga* with five notes.
auTavam - Same as *audaya*.
avarookaNam - descention the musical scale.
azhunku - a paN.
bhairavam - *raagaa*
bhairavi - a *raaga*.
Bharata - author of *naaTyas'aastra*.
caaN - hand span
caankimam - a paN.
caaral - a paN.
caariira viiNai - lit, body *viiNai*, voice.
caataaLi - a paN.
caataari - a paN.
caaTavam - same as shaadava, a paN with six notes.
caavakakkuRinci - a paN.
caayari - a paN.
caayaveeLar kolli - a paN.
caccapuTam – a *taaLam*.
cakooTa yaazh – *yaazh* with fourteen strings.
callikai - a percussion instrument.
camam - lit, equal; middle register.
caman - same as *camam*
campuuraNam - same as *sampuurNa: raaga* with all the seven notes.
cankam - conch.
canti - a paN.
cantiravaLaiyam - a percussion instrument.
caTcam - same as *shaḍja*, jmusical note, kural.
caturam - square.
caturappaalai - musical scale represented in a square.
caturtha (S) - fourth.
caturttam - same as caturtha.
cavalai - type of Tamil song.
cayantam - a Tamil treatise on music.
Ceekkizhaar - author of *tiruttoNTar puraaNam.*
celavu - a technique of yaazh playing.
cempaalai - one of the seven *paalai-s.*
cenkooTTiyaazh - yaazh with seven strings.
centiRam - a paN.
centu - a paN.

centuRai - type of Tamil song.
cerunti - a paN.
cevvazhippaalai - one of the seven *paalai-s*.
cevvazhippaN - one of the four major paN-s.
cevvazhiyaazh - *yaazh* with strings tuned to the notes of *cevvazhippaN*.
ceyiRRiyam - a Tamil treatise on music.
ciikaamaram - a paN
ciir - time measure; metrical foot.
ciirkooTikam - a paN.
ciivani - a paN.
ciiyam - lit. lion; sign Leo.
cinkam - lit. lion; sign Leo.
cintu - Tamil folk song.
cinnam - same as tiruccinnam.
ciRupaRai - a percussion instrument; circular drum
ciRu teevapaaNi - type of Tamil song.
cittairppuNarppu - a technique of playing *kuzhal*.
coomaraakam - a paN.
curuti - same as *s'ruti, maattirai, alaku*.
cunutikaantaaram - a paN.
cutta kaantaaram - a paN.
curtunkaraakam - a paN.
cuuttiram - epigram, aphorism
dhaivata (S) - a musical note, viLari,
eeka taaLam - time measure having half *maattirai*.
eekaraaga viiNaa (S) - viiNaa in which the notes of a particular *raaga* are fixed.
eermankalam - a Tamil song in praise of the plough.
eeRu - bull; also sign Taurus.
eezhicai - the seven musical notes,
eezhilaippaalai - *alatonia acholaris*, a seven-leaved milk-plant.
erutu - lit. bull; sign Taurus.
eTuttal - lit. taking up; one of the eight actions pertaining to paN.
ezhaal - melody.
ezhuttu - lit. letter; musical notes, sa ri ga ma pa dha ni.
gaandhaara (S) - a musical note, kaikkiLai.
giitam (S) - song.

graama (S) - collection of a number of tones, musical scale.

icai - music, musical note,

icai ezhaal - production of melody.

icai ezhuvu - same as *icai ezhaal*.

icai marapu - a Tamil treatise on music.

icai nuNukkan - ,,

icaippaa - a musical composition.

icaippaaTTu - ,,

ilakkaNam - grammer; definition.

iLankoo – author of C.

iLi - a musical note.

iLikkiramam sequence of fifths.

iNai - lit. pair, parallel; octave.

intaLam - a paN.

intirakaaLiyam - a Tamil treatise on music.

intira vizhaa - a festival in honor of Intiran, god of the *marutam* region.

iraaci - same as raas'i, zodiacal sign.

iramakkiri - a paN.

iTakkai - a percussion instrument, played with the left hand.

iTamuRai - left or anti-clockwise method.

iTanilaippaalai - *paalai* in which shifting of kural takes place in the left or anti-clockwise method.

iTapam – lit. bull, sign Taurus

iyakkam – tempo.

kaalai muracam - *muracu* (a drum) played at dawn.

kaanalvari - Tamil song about the sea and the sea-shore.

kaanci - a paN.

kaantaaram - a paN; musical note, kaikkiLai.

kaantaarapancamam - a paN.

kaaTTaaLatti - type of *aaLatti* performed with *taaLam*.

kaikkiLai - a musical note.

kaiyuuzh - a technique of *yaazh* playing.

kalam - yaazh.

kampitam - lit. shake; one of the eight actions pertaining to paN.

kaNappaRai - a percussion instrument.

kancakkaruvi - lit. instrument made of bronze, cymbals.

kancam - bronze.
kanca taaLam - bronze cymbals.
kanni - lit. virgin virgo.
kantam - type of Tamil song figuring in dramas.
kantuka vari - type of Tamil song sung by girls while playing games with a ball.
kaNviTu tuumpu - a percussion instrument
karaNam - technique.
karaTikai - a percussion instrument.
kaRkaTakam - lit. crab; sign Cancer.
kaucikam - a paN.
kauTi - a paN.
kauvaaNam - a paN.
keeLvi – musical note; lit. hearing.
keetaaLikkuRinci - a paN.
kiitam - song; same as giitam.
kiLai – lit. a relative; the five notes kural, iLi, tuttam, viLari and kaikkiLai; also diminutive form of kaikkiLai.
kiNai - *paRai*, a percussion instrument.
kinnaram - a paN.
kinnarii - a *viiNa* with thirteen frets.
kizhamai - possession.
koccaKam - middle part of a song.
kolli - a paN.
kolli varaaTi-a paN.
kompu - horn .
konRaikkuzhal - *kuzha*l made from the fruit of *konRai* tree.
koNTaikkiri - a paN.
kool - string; also sign Libra.
kooNam - angle.
kooTu - lit. horn; part of yaazh.
koTippaalai - same as *kooTippaalai*.
kooTippaalai - one of the seven *paalai-s*.
kooTi - lit. tip; kooTippaalai.
koTTu - drum syllables; *colkaTTu*; *vacciyam*; also action pertaining to *taaLam*.
koTukoTTi - a kind of dance; also a percussion instrument.
kumpam - lit. pot; sign Aquarius.
kuNanuul - a Tamil treatise on music.
kuNil - drum stick.

kuRai - deficiency.
kural - a musical note; voice; sound; shaḍja.
kural tiripu - shifting of kural.
kuRaNTi - a paN.
kuravai - type of dance in which seven or nine persons stand forming a circle, and dance clasping hands.
kuRinci - mountainous region.
kuRincippaN - one of the four major paN-s; the paN belonging to the *kuRinci* region.
kuRincippaN - same as *kuRincippaN*; also *yaazh* the strings of which are tuned to the notes of *kuRincippaN*.
kuRumpooKKu - a technique of *yaazh* playing
kuTukkai - a percussion instrument; same as *iTakkai*.
kuuTam - same as pakai; dissonance.
kuyiluvar - instrument players.
kuzhal - flute.
MaaNikkavaacakar - a Tamil saint, author of *tiruvaacakam*.
maarccanai - applied to the right face of *taNNumai*,
maaTakam - part of *yaazh* containing pegs,
maattirai - measure of any kind (length, breadth, number, quantity, duration etc.) pitch interval between notes; same as *s'ruti* or *alaku*; duration in *taaLam*.
maatunkaraakam - a paN.
Maayavan - lit. the dark one; god of the *mullai* region.
maayoon paaNi - song on *Maayavan*.
madhyama-s - a musical note, uzhai.
madhyama graama(s) - a musical scale mentioned in Bharata's *naaTya s'aastra*.
makaram - lit. sea monster; sign Capricornus.
makara yaazh - *yaazh* with nineteen strings.
malaari - a paN.
mankalavaazhttu - benedictory song.
maNTaLam - a circle, the path or orbit of celestial bodies.
mantam - lit. low; lower register.
maNTilam - same as maNTalam; also a paN.
marapu - tradition.
maruL - a paN.
marutam - cultivated land.

marutappaN - paN of the *marutam* region; one of the four major paN-s.

marutayaazh - *yaazh* with strings tuned to the notes of *marutappaN*.

mati - *iraaci*, zodiacal sign.

mativaaNar - author of *naaTakattamizh nuul*.

meekaraakakkuRinci - a paN.

melivu - lit. slender; lower register; same as *mantam*, *menmai*.

menmai - same as *melivu*.

meeRcempaalai - one of the seven *paalai-s*.

meeTam - lit. ram; sign Aries.

miinam – lit. fish; sign Pisces.

miittiRampaTaamai - seeing that continuity of sound is maintained when a number of instruments are being played,

mitunam - lit. pair or twins; sign Gemini.

montai - a percussion instrument.

mrdangam (s) - same as *taNNumai* or *mattaLam*.

mukanilai - first part of a song.

mukavari – type of Tamil song.

mukaviiNai - a reed instrument.

mullai - forest region.

mullaikkuzhal - *kuzhal* with holes for playing *mullaippaN*.

mullaippaN - a paN, belonging to the *mullai* region.

mullaiyaazh - yaazh with strings tuned to the notes of *mullaippaN*

muracam, muracu - a percussion instrument; cylindrical drum.

muRai - order, method.

murinilai - last part of a song.

murivari - type of Tamil song full of short letters.

muruTu - mattaLam, a percussion instrument.

muRuval - a Tamil treatise on music.

mutal - first.

muTikkai - change of paN.

mutirnta intaLam - a paN.

muTivu - end.

muttirai - the hole in *kuzhal* closest to the right end.

muzhaa - a percussion instrument.

muzhavu - same as *muzhaa*.

naadasvaram (s) - a double reed instrument.

naagasvaram (s) - same as *naadasvaram*,

naakam – a paN.

naakaraakam - a paN.

naakatoni - a paN.

naaraayaNi - a paN.

naaratan - a celestial sage; author of *pancapaaratiiyam*.

naaTaKam - drama.

naatakattamizh nuul – a Tamil treatise on drama by *MativaaNanaar*.

naivaLam – a paN; same as paN *naTTapaaTai*.

nalital - lit. to become slender; one of the eight actions pertaining to paN.

nammaazhvaar – Tamil saint who was the author of *tiruvaaymozhi* hymns on *vishNu*.

narampu - lit. gut string; musical note.

narampukkaruvi – stringed instrument.

naTpu - lit. friend; fourth note.

naTTapaaTai - a paN.

naTTaraakam - a paN.neertiRam - a paN;same as *nootiRam*.

neytal - sea-shore.

neytaliyaazh - one of the four major paN-s; paN belonging to *neytal* region.

neytalpaN - a paN.

neytalpaRai - a percussion instrument; funeral drum.

nicaaLam - a percussion instrument.

niRai - full.

niRam - color.

nirupatunkaraakam - a paN.

nishaada (s) - a musical note; taaram.

niTaatam - same as *nishaada*.

nootiRam - a paN, same as *puRaniirmai*.

oli - sound; also action pertaining to paN.

ootuvaar - class of musicians singing the Tamil hymns, *teevaaram*.

oRRaRuppu - marking the *taaLa* beat,

oRRu - *taaLa* beat; lit. to press.

oRRuRuppu - part of *yaazh*.

paacuram - stanza, usually of a hymn.

paakam - a percussion instrument.
paakkazhi - a paN.
paalai - desert region; musical scale having seven notes; *alstonia acholaris*, a seven-leaved milk-plant.
paalaippaN - paN belonging to the *paalai* region.
paalaiyaazh - one of the four major paN-s; *yaazh* with strings tuned to the notes of *paalaipaaN*.
paaN - song,
paaNan - musician.
paaNi - song: paN; taaLam; hand.
paaNTil - bronze cymbals; same as *kancataaLam*.
paaTi - a paN.
pairavam - a paN; same as *bhairavam*.
paiyuLkaanci - a paN.
pakai - lit. enmity or enemy; dissonance.
paN - musical mode.
pancama (s) - a musical note; iLi.
pancamam - same as *pancama*; also a paN.
pancamarapu - a Tamil treatise on music by *ARivanaar*.
pancamuKhavaadyam (s) - a five faced drum used in temples.
pancapaaratiiyam - a Tamil treatise on music by *naaratanaar*.
PancataaLam - the five *taaLam-s caccaputam* etc.
pancuram - a paN.
paNmaaru - change of paN; same as *muTikkai*.
paNNaaLatti - improvisatory elaboration of paN.
paNNal - one of the eight *karaNam-s* (techniques) of *yaazh* playing; tuning.
paNNirmai - characteristic of the paN.
paNNiyal - paN with six notes.
paratam - a treatise on music by *paratar*.
paratacaattiram - a treatise on music and dance by *Arapattanaavalar*.
parata ceenaapatiiyam - a Tamil treatise on drama by *Aativaayilaar*.
paripaaTal - a Tamil classic containing songs set to paN-s.
parivaTTaNai - a technique of *yaazh* playing.
paRRu - song sung for dance; same as *vaaram*.
paTakam - a percussion instrument.

patinaaRu paTalam - a Tamil treatise onmusic.

pattar - lit. wooden trough; part of *yaazh*.

paTTaTai - lit. anvil; the iLi note; *iLikkiramam*; also a technique of *yaazh* playing.

paTumalai - a paN.

paTumalaippaalai - one of the seven *paalai-s*.

paTuttal - lit. lying or laying down; one of the eight actions pertaining to paN.

pazhampancuram – a paN.

pazhantakkaraakam - a paN.

peerikai - a percussion instrument.

peeriyaazh - *yaazh* with twenty one strings.

periyavaraaTi - a paN.

peruku - a classification of paN.

perum - big.

perumpaRai – a percussion instrument; circular drum.

perumuLai - type of Tamil treatise on music.

perunkalam - *yaazh* with thousand strings.

perunkuruku - a Tamil treatise on music.

perunteevapaaNi - type of Tamil song; song on God.

pinkalamunivar - author of *pinkalantai*

pinkalantai - a Tamil lexicon written by *Pinkalamunivar*.

Pinnai - a cowherd girl who became the beloved of *Maayavan*.

pinRai - same as Pinnai.

pirakalai - one of the parts of *uru*.

pirapantam - type of Tamil song figuring in dramas.

piyantai - a paN.

porunar - minstrels who sing at dawn; musicians,

puRam - lit. out; classification of paN,

puRanilai - same as *puRam*.

puRaniirmai - a paN.

raaga (S) - musical mode.

raas'i (S) - same as *iraaci*; zodiacal sign; one twelfth of an ecliptic.

ishabha (S) - a musical note; tuttam; also sign Taurus.

riTapam - same as *rishabha*.

sampuurNa (S) – lit. full; paN or *raaga* with all the seven notes.

shaaḍava (S) - paN or raaga with six notes.

shaḍja - a musical note; kural.

shaḍja graama (S) – a musical scale mentioned in Bharata's *naaTya s'aastra*.

s'ruti -(S) - lit. that which is heard; same as *mattirai*; pitch interval between notes.

suutra (S) - aphorism, string of rules, concise rules, aphoristic rule.

taakku - lit. strike or attack; action pertaining to paN.

taaLam - time measure; also cymbals.

taaLavakaiyoottu – a Tamil treatise dealing with *taaLam*.

taaLi - a paN.

taaNu - a paN.

taaram – a musical note; *nishaada*.

taarappaNTiRam - a paN.

taivaral – a technique of *yaazh* playing

takkai - a percussion instrument.

takkaNaati - a paN.

takkaraakam - a paN.

takkeeci - a paN.

takuNiccam - a percussion instrument.

tamarukam - a percussion instrument, hour-glass shaped instrument.

tamizhkkuccari - a paN.

tamizhveeLar kolli - a paN.

taNNumai - *mattaLam*, a percussion instrument.

tantirikaram - part of *yaazh*.

tanu - lit. bow; sign Sagittarius.

taNukkaanci - a paN.

taTaari - a percussion instrument.

tattaLapancamam - a paN.

tavil - a percussion instrument, accompaniment to *naagasvaram*.

teecaakkari - a paN.

teevaaram - Tamil hymns composed in paN-s by *Sampantar*, *Appar* and *Suntarar*.

teevapaaNi - type of Tamil song; song on God.

teruTTal - technique of yaazh playing.

timilai – a percussion instrument.

tiraaTam - a paN.

tiraL - very fast tempo.

tiRam - a paN with five notes.
tiRattiRam - same as *caturtha*.
tirikooNam - triangle.
tirikooNappaalai - musical scale represented in a triangle.
tiripatai - type of Tamil song having three feet.
tiruccinnam - a wind instrument.
tiruppuKazh - Tamil hymns on *Murukan* by Saint *Arunakiri*.
tiruvaacakam - Tamil hymns composed by *MaaNikkavaacakar*.
tiruvaaymozhi - Tamil hymns composed by *nammazhvaar*.
tivaakaram - a Tamil lexicon.
tivavu - leather strap with which the strings of *yaazh* are fastened.
tivviyappirapantam - Tamil hymns on *VishNu* composed by the twelve *Aazhvaars*.
tonRupaTu muRai - the old method.
tool - skin, membrane.
toolkaruvi - percussion instrument.
tooriyamaTantai - an aged dancer who provides vocal music for dance.
tooTi - a paN.
tukkaraakam – a paN.
tulai, tulaam - lit. scales; sign Libra.
tuLai - hole.
tuLaikkaruvi - wind instrument.
tuLLalvari - type of Tamil song.
turuvai - one of the parts of *uru*.
tuTi - a percussion instrument, hour-glass shaped drum.
tuttam - a musical note, *rishabha*.
tuTumai - a percussion instrument.
tuukku - action pertaining to *taaLam*.
tuumpu - *kuzhal*.
tuumpu makam - left end of *kuzhal*.
uccam - lit. high; higher register.
ukkiram - one of the parts of *uru*.
uLartal - plucking a string.
untal - technique of *yaazh* playing.
upaankam - a percussion instrument.
uRazhtal - technique of *yaazh* playing.
uru - lit. form; musical composition.

uruppaTi - same as *uru*; a piece.
uruTTal - a technique of *yaazh* playing.
uruTTu - lit. roll; action pertaining to paN.
utayakiri - a paN.
uTukkai - a percussion instrument.
uucal - swing.
uututtuLai - mouth-hole in *kuzhal*.
uzhai - a musical note; *madhyama*.
uzhaiyuLi - same as uzhai.
vaacciyam - same as *koTTu* or *ColkaTTu*; drum syllables.
vaaram - song in medium tempo with mellifluous words and melody; same as *paRRu*.
vaarappaaTal - same as *vaaram*.
vaartal - technique of *yaazh* playing.
vaLai - conch.
valam - right; clockwise.
valivu - lit. strength; higher register; same as *vanmai*.
vaLLaippaaTTu - song sung by women when pounding grain with pestle.
vampuRu marapu - new tradition.
vancanaippuNarppu - a technique of playing *kuzhal*.
vankicam - lit. bamboo; *kuzhal*; flute.
vankiyam - same as *vankicam*.
vanmai - same as *valivu*.
vaNNam - type of Tamil song with sixteen feet.
varaiyaRai - boundary, limit.
vari - song.
varippaaTTu – same as *vari*.
varttanai - technique of playing *kuzhal*.
vaTittal - a technique of *yaazh* playing.
vaTTam - same as *maNTalam*; circle.
vaTTaNai - a technique of *yaazh* playing.
vaTTappaalai - circular scale; Representation of the musical scale in a circle.
veeLaavaLi - a paN.
veNTuRai - type of Tamil song.
viiNai - a stringed instrument.
viiramuracu - a percussion instrument, war drum.
vil - lit. bow; sign Sagittarius.
viLaiyaaTTu - a technique of *yaazh* playing.

viLari - a musical note; *dhaivata*.
viLarippaalai - one of the seven *paalai-s*.
viLarippaN – a paN.
vipanci - a paN.
viral - finger; also linear measurement =3/4". same as *ankulam*
viraleeRu - a percnssion instrument.
virimuraN - type of Tamil song.
virucciKam . lit. scorpion; sign Taurus.
viruntiRpaaNi - new type of song; same as *perumuLai*.
vishNu (S) - same as Maayavan.
viTai - lit. bull; sign Taurus.
viyaazhakkuRinci - a paN.
viyantam - a paN.
yaamai - a paN.
yaamaLeentirar - author of *intirakaaLiyam*.
yaazh - a stringed instrument.

BIBLIOGRAPHY

English

T. Burrow ond M. B. Emeneau, *A Dravidian Etymological Dictionary*, London, 1961.

Alain Danielou, *Cilappatikaram*, Tr. 1964.

S. Krishneswami, "Research on Musical Instruments of India," *Journal of the Music Academy*, Madras, Vol. 33 (1962), pp. 100–110.

S. Krishnaswami, "Drums of India," *Journal of the Music Academy*, Vol. 38, (1967), pp. 72-82.

Kunhan Raja, *Sangita Ratnakara* of Sarngadeva, Ch. 1, Tr. Adyar, Madras, 1945.

Manomohan Ghosh, *Natya Sastra* of Bharata, Vol. 2, Tr. Calcutta, 1961.

John R. Marr, "Tamil Literature," *Encyclopedia Britannica*, Vol. 21, 1969, pp. 468.

K. A. Nilakanta Sastri, *Culture and History of the Tamils*, 1964.

K. A. Nilakanta Sastri, *History of South India*, Madras, 1966.

Swami Prajnananda, *A History of Indian Music*, part 1, Calcutta, 1963.

V. R. Ramachandra Dikshitar, *The lay of the Anklet*, Tr. of Cilappatikaaram, Madras, 1939. Apendix: "Music in Silappatikaram."

S. Ramanathan, "Svara sthanas and their nomenclature," *Journal of the Music Academy*, Madras, Vol. 30, (1959) pp 63-69

S. Ramanathan, "Raghunatha Mela Vina," *Journal of the Music Academy*, Madras, Vol. 35, (1964), pp. 143-147

S. Ramanathan, "Gramas and Musical Intervals," *Journal of the Music Academy*, Vol. 31, (1960) pp 74–79.

S. Ramanathan, "Survey work: Rare Musical Instruments of South India, *Journal of the Music Academy*, Vol. 33, (sup.), pp. 38-41.

M. S. Ramaswami Aiyar, Tr. *Svaramela Kalanidhi* of Ramamatya, Annamalainagar, 1932.

P. Sambamoorthy, *History of Indian Music*, Madras, 1960.

P. Sambamoorthy, *South Indian Music*, Book 3, Madras, 1964.

P. Sambamoorthy, *South Indian Music*, Book 4, Madras. 1963.

P. Sambamoorthy, *South Indian Music*, Book 5, Madras, 1963.

P. Sambamoorthy, *The Flute*, Madras, 1967.

P. Sambamoorthy, Dictionary of Music, Madras, 1959.

J. M. Somasundaram, *History of Tamil Literature*, Annamalainagar, 1967.

Tamil

M. Abraham Pantithar, *KaruNaamiruta Caakaram*, Tanjavur, 1917. (deals with music in ancient Tamil country)

Arumpata urai aaciriyar, Commentary, *Cilappatikaaram*, ed. U.V.Swaminatha Aiyar, 1927.

ed. U. V. Swaminatha Aiyar, ATiyaarkku nallaar, Commentary, Cilappatikaaram, 1927.

ed. C.K. Subramanya Mudaliyar, Madras, Ceekkizhaar, tiruttoNTar puraaNam, (Lives of Tamil saints 12th cent. A.D.) 1937.

ed. Tandavaraya Mudaliyar, Ceentanaar, *tivaakaram* (Tamil lexicon, 11th cent. A.D.), Madras, 1923.

M. M. Dandapani Desigar, *tevaara tivviyappirapanta tiruppukazh paaTalkaL*, Madras, 1966, (Tamil hymns with notation)

ed. U. V. Swaminatha Aiyar, ILanko ATikaL, *cilappatikaaram*, (2nd cent. A D.), Madras, 1927.

ed. N. M. Venkatasami Nattar, ILanko ATikaL, *Cilappatikaaram*, Thanjavur, 1942.

K. Kodandapani Pillai, *pazhantamizhar icai*, (Music of the ancient Tamils), Madras, 1959.

S. Kodandaramam, *tamizhar icai karuvikaL* (Musical Instruments of the Tamils), Annamalainagar, 1945.

Pinkala munivar, *pinkalantai*, (Tamil lexicon) Madras, 1969.

K. Ponniah Pillai, *icai iyal*, (Theory of Music), Annamalainagar, 1948.

M. Ponnuswami Pillai, *puurviika cankiita uNmai*, (Truth about ancient music), Madurai, 1930.

S. Ramanathan, *cilappatikaarattu icai nuNukka viLakkam* (Music in cilappatikaaram), Madras, 1956.

S. Ramanathan, *aaycciyar kuravai*, (Songs from cilappatikaaram set to music), Madras, 1968.

S. Ramanathan, *tivviyappirapantappaN icai* (Hymnal music of the vaishnavaite saints), Madras, 1969.

S. Ramanathan, *teevaarappaN icai*, (hymnal music of the Saivaite saints), madurai, 1970.

tolkaappiyar, *tolkaappiyam* (Tamil grammar), Tirunelveli, 1959.

A. A. Varaguna Pandiyan, *yaazh nuul allatu paaNar kaivazhi*, (about yaazh and viiNai), Thanjavur, 1950,

K. Vellaivaranan, *panniru tirumuRai varalaaRu*, (History of the Tamil hymnal Literature), Annamalainagar, 1962.

Vipulanada Adigal, *yaazh nuul*, (book on yaazh), Thanjavur, 1947.

pub. S. Rajam, *paripaaTal*, 1957, (a classic of the cankam age containing songs)

Report of the Pan Research Codference, Tamil Isai Sangam, Madras, 1959.

Sanskrit

Bharata, *Natya S'astra,* Vol. 1 to 4. ed. B. Bhattacharya, Baroda, 1926.

Ramamatya, *Svaramela Kalanidhi,* ed M. S. Ramaswami Ayier, Annamalainagar, 1932.

Sarngadeva, *Sangita Ratnakara,* Vol. 1 to 4 ed. Pandit Subrahmanya Sastri, Madras, 1953.

PERSONAL RESUME. **S. RAMANATHAN**

Place and Date of Birth: Valavanur, Tamilnadu, South India. April 8, 1917

Marital Status: Married

Musical Training: Studied Music at the Annamalai University under Sangita Kalanidhis T. S. Sabhesa Aiyer, K. Ponniah Pillai, Tiger Varadachariar. 1934-38, and Valadi Krishna Aiyar. Studied vina under Devakottai Narayana Aiyangar. Passed Sangita Bhushana Course of the Annamalai University, 1938 I class with Distinction.

Teaching Experience: Founder, Kalaimagal Isai Kalloori, Madras, 1954. Lecturer and later Professor of Musicology and Professor of Musical Pedagogy, Central College of Karnatic Music, Madras, 1962-1969. Visiting Lecturer at Wesleyan University Middletown, Connecticut, 1964-1975. Guest Lecturer at the Universities of Illinors, Washington and Colgate, 1964-1965.

Conducted a Seminar in South Indian Music at the University of Illinois, 1967. Taught at Madurai, several American students under the program of the Great Lakes Colleges Association, U. S. A. Principal, Sri Sathguru Sangeetha Vidyalayam, (Music College) affiliated to Madurai University, Madurai. (on leave) 1969
Taught at Colgate University Jan. 1972 and 1973. Presently visiting Artiste, Wesleyan University.

Performances: Given numerous performances both vocal and vina concerts in India and the United Kingdom and U. S. A. Broadcaster in A. I. R., Madras and Tricy. Performed at the United Nations Human Rights' Day, 1964.

Books Published (in Tamil): Music in Cilappatikaaram
Kavadi Cindu-Folk melodies
Tevara Pan Isai
Divya Prabandha Pan Isai
Tyagaraja's Prahlada Bhakti Vijayam
Utsava Sampradaya Kirtanas
Divya Nama Kirtanas
Aaycciyar kuravai
Masterpieces of Syama Sastri
Nandanar charittira kirtanai
Contributed articles to the Journal of the Music Academy, Madras.

Member, Experts' Committee, Music Academy, Madras.
Has been Research Officer for the Survey of Arts, Tamilnadu Sangita Nataka Sangam, Madras.
Member, Academic Council, Madurai University.
Member, Board of Studies, Kerala University.
Member, Board of Studies, Madurai University.
Participated in the Conference of the Society for Ethnomusicology, 1964.
Honored with the Title of "Madhura Kala Praveena" by the Sri Sathguru Sangeetha Samajam, Madurai.
Languages known: Proficient in Tamil, English, Sanskrit and Telugu. Familiar with Kannada, Malayalam and Hindi.

ERRATTA

Page	Line	Erratta	To read as
21	10	kaakal	kaakali
	27	ma-2	ma-1
28	32	(Conso-name)	Conso-nance
104	3	becomes of	becomes kural of
107	31	rhytm	rhythm
126	23	*koccakma*	*koccakam*
148	14	sveen	seven
160	23	inttu	initu
	27	meelTu	meeliTu
162	5	kooTippaalia	kooTippaalai
165	10	rigth	right
180	2	*audaya*	*audava*
	3	descention	descent in
181	32	*acholaris*	*Scholaris*
187	4	*acholaris*	*Scholaris*
188	36	ishabha	rishabha